

Monsanto

MONSANTO COMPANY
MAJOR PRODUCT DATA BOOK

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MONSANTO COMPANY

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MONSANTO COMPANY

MAJOR PRODUCT DATA BOOK

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TOTAL MONSANTO COMPANY
MAJOR PRODUCT DATA BOOK

The following annual Major Product Data Book provides product data for 90% of the total capital employed by the six operating companies of Monsanto. The data is grouped by operating company with summaries of Cash Flow and Net Income Returns on Capital schedules; in addition, product sheets are summarized by total products within business groups and/or divisions of the operating companies.

Although this report is grouped for analytical purposes by operating company, in summary the total capital employed by the six operating companies was \$3689 million in 1977; this was an increase of 12% over the prior year. An additional 11% increase in capital employed is budgeted for 1978.

The overall Return on Capital employed by Monsanto was 8.0% in 1977; this, overall, was an average of a range of from 26.6% for the Agricultural Products Company down to a loss for the Textiles Company. This average return was 3.6 percentage points below the prior year.

The schedules immediately following provide summary data on a total Monsanto basis. Then each section of the report provides summary data by operating company followed by detailed data on a product or product group basis.

All historical and 1978 Budget data has been prepared to reflect the cost of key major intermediates transferred between operating units at cost plus a share of capital. All other materials continued to be transferred between operating units on a market or negotiated transfer price basis. In addition, for a selected group of products, additional data on a "See Thru" basis is furnished. This added data provides product profitability on an actual cost basis after adjusting for selected intermediates presently transferred at a market or negotiated price. These groups of intermediates and selected products are as follows:

<u>"Cost of Capital"</u> <u>Intermediates</u>	<u>"See-Thru" Products</u>
Acrylonitrile	Parathion
Ammonia	Phosphorus Pentasulfide
Chlorobenzenes	Phosphorus Trichloride/ Oxychloride
(MCB/PNCB/ONCB)	Food Phosphates
Ethylene	Phosphate Esters
Nylon Salt	Santicizer 711 and 160
Phenol	
Styrene Monomer	

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TOTAL MONSANTO COMPANY
WORLDWIDE CAPITAL EMPLOYED BY OPERATING COMPANY
(Amounts in Millions)

VC-2

	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
Agricultural Products	\$ 430.3	30.5%	\$ 538.8	26.6%	\$ 641.5	21.6%
Chemical Intermediates	488.3	17.4	610.7	10.9	681.9	7.6
Commercial Products	236.8	-	205.4	8.0	236.3	5.1
Industrial Chemicals	582.6	19.9	674.3	16.7	751.3	14.9
Plastics & Resins	684.9	7.4	728.4	4.7	823.8	3.4
Textiles	883.0	-	931.1	-	955.4	-
NED	<u>1.7</u>	-	<u>-</u>	-	<u>-</u>	-
Total	\$3,307.6	10.9%	\$3688.7	9.1%	\$4,090.2	7.8%
Allocated Capital (Over)/Under Absorbed	\$ (139.7)		\$(257.2)		\$ (467.2)	
Total Monsanto	<u>\$3,167.9</u>	<u>11.6%</u>	<u>\$3,431.5</u>	<u>8.0%</u>	<u>\$3,623.0</u>	<u>9.2%</u>

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TOTAL MONSANTO COMPANY
RETURN ON CAPITAL

During 1977, Agricultural Products, Chemical Intermediates, Industrial Chemicals and Plastics and Resins generated lower returns on capital than in 1976 with Commercial Products returns improving. Textiles operated at a loss in both years.

The 1978 budget projects lower returns on capital for all companies. Textiles will continue in a loss position. A summary of ROC percentages for the years 1974 through 1978 is as follows:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> <u>Budget</u>
Agricultural Products	73.3%	43.3%	30.5%	26.6%	21.6%
Chemical Intermediates	23.0	14.7	17.4	10.9	7.6
Commercial Products	-	-	-	8.0	5.1
Industrial Chemicals	23.9	23.2	19.9	16.7	14.9
Plastics & Resins	12.0	3.3	7.4	4.7	3.4
Textiles	7.7	-	-	-	-
Total Monsanto	13.8%	10.9%	11.6%	8.0%	7.8%

During 1977, Monsanto had 30% of its total capital employed earning over 15% ROC. Based on this total of 30% of capital employed earnings better than 15%, ROC compared unfavorably with the prior year when 37% of the capital employed earned better than a 15% ROC. Further, in 1978 the capital employed earning above 15% return is budgeted to continue to decline to 21% of the total capital employed. The following table and chart on the opposite page summarize Monsanto's total capital employed by ROC groupings.

<u>Net Income Return on Capital</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> <u>Budget</u>
Over 15%	37%	30%	21%
5 to 15%	27	26	37
0 to 5%	12	12	13
Loss	24	32	29
Total Capital Employed	<u>100%</u>	<u>100%</u>	<u>100%</u>

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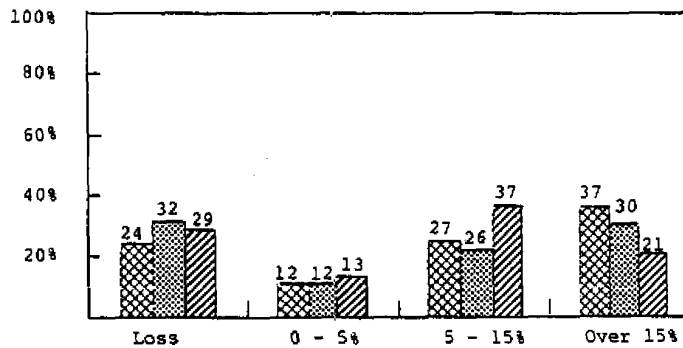
TOTAL MONSANTO COMPANY
WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPINGS
 (Amounts in Millions)

Dollar Investment

1976	\$ 808	\$399	\$ 878	\$1223	\$3308
1977	1145	475	967	1102	3689
1978 Budget	1175	530	1515	870	4090

ROC Grouping Loss 0 - 5% 5 - 15% Over 15% Total

1976 
 1977 
 1978
 Budget 

Percentage of
Total Investment

← ROC Grouping →

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MC-5

TOTAL MONSANTO COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
(Amounts in Millions)

<u>1977 Capital Employed</u>	<u>Major Product</u>	<u>1977 Net Income Loss</u>
\$236.9	Acrylonitrile	\$ 8.4
186.0	Polyester - CF	10.8
155.7	Lustrex	5.8
119.9	Acrilan - Europe	12.9
88.8	Nylon - Apparel	0.7
80.7	Nylon - Europe	25.1
47.2	Acrilan - Carpet	2.9
38.4	Silicon	1.7
25.6	Expandable Polystyrene	5.2
23.6	Nonwovens	3.6
22.2	HDPE	0.5
16.5	Elect. Process Controls	1.9
16.3	Optoelectronic Devices	1.3
9.2	III-V Materials	2.3
5.9	Farmers Hybrid - Swine	0.4
3.5	Polaris	0.4

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MORGAN COMPANY
MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING - 1977
(Amounts in Millions)

MC-6

CAPITAL EMPLOYED	NET INCOME RETURN ON CAPITAL			
	LOSS	0% - 5%	5% - 15%	OVER 15%
OVER \$50	Acrylonitrile \$ 236.9 - % Polyester 186.0 - Lustrex 155.7 - Acrlan - Europe 119.9 - Nylon - Apparel 88.8 - Nylon - Europe 80.7 -	Lustran \$226.3 4.2% Acrlan - Apparel 137.2 3.7 Styrene 76.7 3.7	Other MIC \$302.7 12.5% Nylon - Carpet 142.9 5.7 Production & Exploration 112.7 8.0 Resins 95.7 10.3 Parathion 55.9 11.6 Nylon - Industrial 52.2 12.1	Lasso \$ 237.0 35.8% Valves, Regulators, Controllers 126.6 16.3 Saflex 98.2 17.9 STP - Detergent 71.2 19.8 Roundup 65.2 34.7 Avadex 50.6 21.7
	Acrlan-Carpet \$ 47.2 - % Silicon 38.4 - Other WPC 32.7 - Expandable Polystyrene 25.6 -		Santicizer 160 \$ 43.4 8.3% Blowware 31.3 9.9 Santicizer 711 & Blends 31.2 8.7 Vydene 29.4 11.6	Phosphoric Acid \$ 32.2 26.1 Ammonium Nitrate 30.0 16.7 Ethylene 27.5 51.2
\$25 - \$50	Monomers \$ 21.6 - % NEPC 22.2 - Elect. Process Cont. 16.5 - Optoelectronic Devices 16.3 -	Film \$ 14.9 4.7% Acetone Cyanohydrin 12.0 1.7	Polyester Staple \$ 19.9 11.1% Food Phosphates 14.4 5.6 Phosphate Esters 11.7 5.1 Instrument Equip. - MICC 11.0 9.1	Other Nylon Inter. \$ 24.8 29.4 Other MICC 24.1 15.4 Santoflex 22.8 23.7 Phosphorus 22.0 17.7 ACL's 19.3 21.2 Santocure NS 19.1 28.3 Maleic & Fumaric 18.0 16.7 Rozmed 17.5 25.7 Soft Alkylbenzene 15.6 50.0 Methanol 14.6 24.7 Phenol 14.4 33.3 MVC 12.5 32.0 ANFO 12.4 32.3 Aspirin 12.0 31.7 Fome-Cor 11.6 28.5 Anhydrous Ammonia 10.5 21.0
	III-V Materials \$ 9.2 - % Farmers Hybrid 5.9 - Other MCPC (7.2) -	Recreational Products \$ 4.9 4.1% CIM 3.2 3.1	Alcohols & Derivatives \$ 5.0 6.0%	Acetic Acid \$ 9.9 80.8% Machete 9.6 20.0 Vanillin 8.9 66.3 Dequest 8.2 19.5 Sulfuric Acid 8.2 20.7 Nitric Acids 7.3 89.0 Ortho-Nitrophenol 6.8 35.3 PCL & POCL 6.5 46.1 Adipic Acid 5.0 78.0
\$5 - \$10	Other MAPC \$ 33.4 - % Other MPAC 9.4 - Polaris 3.5 -		Nitrochlorobenzene \$ 4.5 11.1% Die Castings 2.8 14.9	MSA \$ 4.2 61.9% Phosphorus Penta-sulfide 3.8 65.8 Therminols 3.4 47.1 Vanadium Catalyst 2.5 52.0 Potassium Hydroxide 2.4 75.0 Modaflow 1.8 61.1 Benzyl Chloride 1.7 105.9 Chlorosulfonic Acid 1.5 66.7 Equip. - Brink 1.5 60.0 Maritic Acid 0.4 200.0 Sulfuric Acid - Fees 0.3 100.0 Sulfuric Acid - Plants (1.5) N/A
UNDER \$5				
TOTAL CAPITAL EMPLOYED \$3689	\$1144.7	\$475.2	\$966.7	\$1101.9

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Net Sales - The invoiced value of products sold to customers after deduction of returned goods, allowances, trade accounts, cash discounts, commissions (where applicable), and outward freight.

Gross Profit is the difference between net sales and cost of goods.

MAT is the sum of Marketing, Administrative, and Technical expenses.

Marketing Expense includes marketing administration services, product management, advertising, field operations, commissions (where applicable), sales and market development, order and billing, and merchandising expense.

Administrative Expense covers general administration within an operating company, including accounting, personnel, public relations, legal, credit and MISD; corporate staff personnel assigned directly to operating companies and other direct charges from central staff function.

Technical Expenses are those expenses associated with the research, engineering, development and patent functions of an operating company. These functions may include applicable central staff personnel attached to operating companies or direct charges made to operating companies by central departments.

Performance Income is the income remaining after deducting from net sales (revenues) all cost of goods sold, MAT expense, other income-net, working capital charge, and the effect of the depletion credit and the DISC income tax credit.

Net Income is the difference between performance income less corporate charges and income taxes, including any tax credits.

Gross Investment is the sum of cash and securities, receivables, inventories, investments and advances, gross property and deferred charges; less current liabilities, other liabilities, and minority interest. Gross property represents the cost of physical assets before the deduction of the reserve for depreciation. In the case of wasting assets (e.g., phosphate deposits and oil producing properties) the reserve for depletion is deducted in order to value these assets at the cost of the remaining materials in the ground.

Fixed Capital is the cost of land, building, machinery and equipment investments before the deduction of the reserve for depreciation (gross property). Fixed capital which is used for several operations/products should be appropriately allocated and included in the Fixed Capital amount for the specific division, product group and product.

Working Capital is the sum of inventories and receivables less payables for product and business groups. For division purposes, working capital is the excess of total current assets over total current liabilities. Working capital should equal the difference between gross investment and fixed capital.

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Capital Employed is gross investment less the reserve for depreciation and amortization and which has also been defined as net investment.

Percent ROC - Net income return on capital is net income after taxes divided by capital employed.

Depreciation is the total straight-line depreciation taken in the specified year for buildings and equipment. This term should also include the straight-line amortization of any intangible asset or deferred charge associated with a particular product/business group.

Gross Property Additions is the total gross capital cost for additions to land, building, machinery, and equipment in the specified year.

Gross Property Retirements is the gross property value of assets retired in the specified year.

Gross Profit as a Percent of Sales is the gross profit divided by total net sales.

MAT as a Percent of Sales is the total MAT expenses divided by total net sales.

Performance Income as Percent of Sales is the performance income divided by total net sales.

Net Income as Percent of Sales is the net income divided by total net sales.

Product Average Selling Price is net sales revenue divided by total units sold.

Product Average Cost Per Unit is cost of goods sold divided by total units sold.

Total Capacity is the maximum unit output on an annual basis for a thirty-day month, seven-day week, three-shift operation without consideration of availability of raw materials or absence of sales.

Percent Utilization - Units produced divided by total capacity.

Market Share is defined as Monsanto Company sales volume divided by total industry sales volume for a particular product in the specified year. For those products which have less than 75% of Monsanto Company sales to outside customers, market share will be the share of total industry productive capacity.

Cash Flow from Operations is net income plus/minus the change in capital employed.

Change in Capital Employed is the difference between current year capital employed versus prior year capital employed. An increase in capital employed is a use of cash; a decrease in capital employed is a source of cash.

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MONSANTO AGRICULTURAL
PRODUCTS CO.

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ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
MAJOR PRODUCTS DATA BOOK

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<u>Crop Chemicals</u>	
Avadex	7 & 8
Lasso	9 & 10
Machete.	11 & 12
Parathion.	13 & 14
Polaris.	15 & 16
Ramrod	17 & 18
Roundup.	19 & 20
<u>Animal & Plant Products</u>	
Anhydrous Ammonia.	21 & 22
Ammonium Nitrate	23 & 24
ANFO	25 & 26
Nitric Acids	27 & 28
Farmers Hybrid-Swine	29 & 30
<u>Minor Products</u>	32

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	405.8	542.1	581.3	668.7	699.2
Gross Profit	230.9	297.5	311.4	360.1	372.0
MAT	33.2	38.4	52.5	71.1	88.2
Performance Income	194.9	247.1	249.0	274.1	266.2
Net Income	102.2	129.8	131.3	143.1	138.4
Capital Employed	139.4	299.5	430.3	538.8	641.5
% ROC	73.3	43.3	30.5	26.6	21.6
U.S.					
Sales	330.1	442.7	448.6	506.2	507.2
Gross Profit	185.5	244.6	242.7	275.2	267.0
MAT	26.0	27.9	38.0	49.6	60.6
Performance Income	154.6	205.2	193.7	212.8	192.2
Net Income	80.0	106.5	100.5	109.4	98.4
Capital Employed	116.6	244.2	344.8	451.3	514.1
% ROC	68.6	43.6	29.1	24.2	19.1
EXPORT AND Ex-U.S.A.					
Sales	75.7	99.4	132.7	162.5	192.0
Gross Profit	45.4	52.9	68.7	84.9	105.0
MAT	7.2	10.5	14.5	21.5	27.6
Performance Income	40.3	41.9	55.3	61.3	74.0
Net Income	22.2	23.3	30.8	33.7	40.0
Capital Employed	22.8	55.3	85.5	87.5	127.4
% ROC	97.4	42.1	36.0	38.5	31.4

Form 1

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
(Amounts in Millions)

Dollar Investment

1976	\$ 24	\$ 5	\$ 62	\$339	\$430
1977	43	-	56	440	539
1978 Budget	48	6	105	482	641

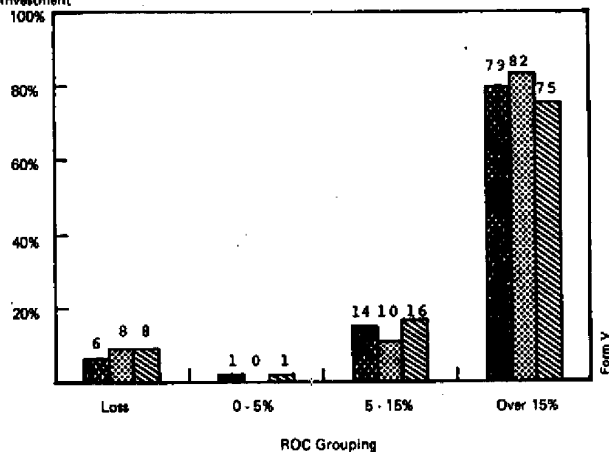
ROC Grouping Loss 0 - 5% 5 - 15% Over 15% Total

1976

1977

1978
Budget

Percentage of
Total Investment



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MONSANTO AGRICULTURAL PRODUCTS COMPANY
WORLDWIDE PRODUCT NET CASH FLOW ANALYSIS
 (Amounts in Millions)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978 Budget</u>
<u>Total Agricultural Products</u>					
Net Income After Tax	\$102.2	\$129.8	\$131.3	\$143.1	\$138.4
Change in Capital Employed	<u>(33.7)</u>	<u>(160.1)</u>	<u>(130.8)</u>	<u>(108.5)</u>	<u>(102.7)</u>
Net Cash Flow	\$ 68.5	\$ (30.3)	\$ 0.5	\$ 34.6	\$ 35.7
<u>Crop Chemicals Division</u>					
Net Income After Tax	\$ 77.8	\$102.3	\$111.8	\$126.0	\$124.3
Change in Capital Employed	<u>(27.2)</u>	<u>(134.5)</u>	<u>(106.2)</u>	<u>(102.0)</u>	<u>(90.0)</u>
Net Cash Flow	\$ 50.6	\$ (32.2)	\$ 5.6	\$ 24.0	\$ 34.3
<u>Animal and Plant Products Division</u>					
Net Income After Tax	\$ 24.4	\$ 27.5	\$ 19.5	\$ 17.1	\$ 14.1
Change in Capital Employed	<u>(6.5)</u>	<u>(25.6)</u>	<u>(24.6)</u>	<u>(6.5)</u>	<u>(12.7)</u>
Net Cash Flow	\$ 17.9	\$ 1.9	\$ (5.1)	\$ 10.6	\$ 1.4

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT
 (Amounts in Millions)

DIVISION	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
Crop Chemicals	\$355.3	31.5%	\$457.3	27.6%	\$547.3	22.7%
Animal & Plant Prod.	<u>75.0</u>	26.0	<u>81.5</u>	21.0	<u>94.2</u>	15.0
Total	<u>\$430.3</u>	30.5%	<u>\$538.8</u>	26.6%	<u>\$641.5</u>	21.6%
<u>MAJOR PRODUCTS</u>						
Lasso	\$190.9	38.7%	\$237.0	35.8%	\$262.9	29.8%
Roundup	35.3	38.8	65.2	34.7	115.7	22.2
Parathion	47.7	13.4	55.9	11.6	63.8	9.2
Avadex	36.8	41.6	50.6	21.7	49.5	28.3
Ammonium Nitrate	25.6	23.8	30.0	16.7	39.4	10.2
Ramrod	18.3	25.7	17.5	25.7	11.4	30.7
ANFO	16.3	36.8	12.4	32.3	15.1	24.5
Anhydrous Ammonia	13.7	13.1	10.5	21.0	7.5	29.3
Machete	11.7	16.2	9.6	20.0	15.3	16.3
Nitric Acids	3.9	130.8	7.3	89.0	6.3	63.5
Farmers Hybrid-Swine	5.4	1.9	5.9	-	6.4	1.6
Polaris	1.0	10.0	3.5	-	2.7	-
Minor Products	<u>23.7</u>	-	<u>33.4</u>	-	<u>45.5</u>	-
Total	<u>\$430.3</u>	30.5%	<u>\$538.9</u>	26.6%	<u>\$641.5</u>	21.6%

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
 (Amounts in Millions)

<u>1977 Capital Employed</u>	<u>Major Product</u>	<u>1977 Net Income Loss</u>
\$ 5.9	Farmers Hybrid-Swine	\$(0.4)
3.5	Polaris	(0.4)

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MONSANTO AGRICULTURAL PRODUCTS COMPANY
MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING - 1977
 (Amounts in Millions)

← NET INCOME RETURN ON CAPITAL →

CAPITAL EMPLOYED	LOSS	0% - 5%	5% - 15%	OVER 15%
OVER \$50			Parathion \$55.9 11.6%	Lasso \$237.0 35.8% Roundup 65.2 34.7 Avadex 50.6 21.7
\$25 - \$50				Ammonium Nitrate \$ 30.0 16.7%
\$10 - \$25				Ramrod \$ 17.5 25.7% ANFO 12.4 32.3 Anhydrous Ammonia 10.5 21.0
\$ 5 - \$10	Farmers Hybrid \$ 5.9 - %			Machete \$ 9.6 20.0 Nitric Acid 7.3 89.0
UNDER \$5	Minor Products \$33.4 - % Polaris 3.5 -			
TOTAL CAPITAL EMPLOYED \$538.8	\$42.8	-	\$55.9	\$440.1

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MAPC-6

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	37.1	51.0	64.8	60.9	70.1
Gross Profit	22.8	28.6	35.5	29.3	37.0
MAT	3.2	3.9	5.6	6.8	7.8
Performance Income	19.7	24.9	29.0	20.9	26.8
Net Income	10.4	13.1	15.3	11.0	14.0
Capital Employed	12.1	21.4	36.8	50.6	49.5
% ROC	86.0	61.2	41.6	21.7	28.3
As a % of Sales:					
Gross Profit	61.5	56.1	54.8	48.1	52.8
MAT	8.6	7.6	8.6	11.2	11.1
Performance Income	53.1	48.8	44.8	34.3	38.2
Net Income	28.0	25.7	23.6	18.1	20.0
U.S.					
Sales	5.9	7.8	9.2	8.6	10.8
Gross Profit	3.8	4.4	5.2	3.7	3.9
MAT	0.9	1.0	2.1	2.7	2.4
Performance Income	2.8	3.3	3.0	0.6	1.2
Net Income	1.4	1.6	1.6	0.1	0.5
Capital Employed	2.4	3.4	6.0	10.3	9.8
% ROC	58.3	47.1	26.7	1.0	5.1
As a % of Sales:					
Gross Profit	64.4	56.4	56.5	43.0	36.1
MAT	15.3	12.8	22.8	31.4	22.2
Performance Income	47.5	42.3	32.6	7.0	11.1
Net Income	23.7	20.5	17.4	1.2	4.6
EXPORT AND Ex-U.S.A.					
Sales	31.2	43.2	55.6	52.3	59.3
Gross Profit	19.0	24.2	30.3	25.6	33.1
MAT	2.3	2.9	3.5	4.1	5.4
Performance Income	16.9	21.6	26.0	20.3	25.6
Net Income	9.0	11.5	13.7	10.9	13.5
Capital Employed	9.7	18.0	30.8	40.3	39.7
% ROC	92.8	63.9	44.5	27.0	34.0
As a % of Sales:					
Gross Profit	60.9	56.0	54.5	48.9	55.8
MAT	7.4	6.7	6.3	7.8	9.1
Performance Income	54.2	50.0	46.8	38.8	43.2
Net Income	28.8	26.6	24.6	20.8	22.8

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	MILLION OF POUNDS OF TECHNICAL				
Antwerp, Belgium	12	17	18	20	20
Luling, Louisiana	-	-	6	14	14

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.7	0.7	1.3	2.8	3.3
Gross Property Additions	0.7	7.7	15.4	4.2	6.0
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	9.8	17.4	32.9	36.3	42.2
Working Capital	5.9	8.1	11.0	24.6	21.4
Gross Investment	15.7	25.5	43.3	60.9	63.6
Avg. Selling Price/Unit (Merchant)	3.73	4.11	3.77	3.68	3.72
Avg. Cost/Unit	1.45	1.81	1.70	1.91	1.76
Total Production - MM Units	10.5	11.8	19.8	21.2	15.3
Total Capacity - MM Units	12.0	17.0	24.0	34.0	34.0
Percent Utilization - %	88	69	83	62	45
Merchant Sales - MM Units	9.9	12.4	17.2	16.6	18.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	9.9	12.4	17.2	16.6	18.0
Market Share (M/I) - %	-	-	-	-	-
U.S.					
Depreciation	0.1	0.1	0.2	0.5	0.5
Gross Property Additions	0.1	1.2	2.5	3.4	0.2
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	1.9	2.8	5.3	6.1	7.0
Working Capital	1.2	1.3	1.8	4.1	3.5
Gross Investment	3.1	4.1	7.1	10.2	10.5
Avg. Selling Price/Unit (Merchant)	2.98	3.37	3.29	3.11	3.45
Avg. Cost/Unit	1.07	1.48	1.43	1.79	2.21
Total Production - MM Units	-	-	3.4	7.5	-
Total Capacity - MM Units	-	-	6.0	14.0	14.0
Percent Utilization - %	-	-	57	54	-
Merchant Sales - MM Units	2.0	2.1	2.8	2.8	3.1
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	2.0	2.1	2.8	2.8	3.1
Market Share (M/I) - %	-	-	-	-	-
EXPORT AND EX-USA					
Depreciation	0.6	0.6	1.1	2.3	2.8
Gross Property Additions	0.6	6.5	12.9	0.8	5.8
Gross Property Retirements	-	-	-	-	-
Fixed Capital	7.9	14.6	27.2	30.2	35.2
Working Capital	4.7	6.8	9.2	20.5	17.9
Gross Investment	12.6	21.4	36.4	50.7	53.1
Avg. Selling Price/Unit (Merchant)	3.92	4.18	3.86	3.79	3.77
Avg. Cost/Unit	1.54	1.84	1.76	1.93	1.67
Total Production - MM Units	10.5	11.8	16.4	13.7	15.3
Total Capacity - MM Units	12.0	17.0	18.0	20.0	20.0
Percent Utilization - %	88	69	91	69	77
Merchant Sales - MM Units	8.0	10.3	14.4	13.8	15.7
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	8.0	10.3	14.4	13.8	15.7
Market Share (M/I) - %	-	-	-	-	-

COMMENTS:

Avadex and Avadex BW (also sold in the United States under the name "Fargo") are preemergent herbicides for the control of wild oats, primarily in wheat, barley and sugarbeets. The principal market for these products are North America and Western Europe where we enjoy approximately market shares of 60% and 20% respectively. Principal competitors and their products include Gulf (Carbyne), Shell (Suffix) and American Cyanamid (Avenger), Hoechst (Hoegrass).

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	166.2	260.7	272.4	317.0	309.8
Gross Profit	108.9	160.5	164.5	191.6	184.5
MAT	11.8	14.9	16.3	21.1	25.2
Performance Income	95.0	138.1	141.0	161.8	149.7
Net Income	49.8	72.4	73.9	84.8	78.3
Capital Employed	68.5	141.2	190.9	237.0	262.9
% ROC	72.7	51.3	38.7	35.8	29.8
As a % of Sales:					
Gross Profit	65.5	61.6	60.4	60.4	59.6
MAT	7.1	5.7	6.0	6.7	8.1
Performance Income	57.2	53.0	51.8	51.0	48.3
Net Income	30.0	27.8	27.1	26.8	25.3
U.S.					
Sales	150.2	241.9	251.8	295.5	285.3
Gross Profit	98.7	149.8	153.4	181.8	173.1
MAT	10.0	12.5	13.2	17.4	21.4
Performance Income	86.1	129.2	132.6	156.0	142.7
Net Income	45.1	67.7	69.5	81.6	74.5
Capital Employed	63.7	133.0	178.1	221.3	242.0
% ROC	70.8	50.9	39.0	36.9	30.8
As a % of Sales:					
Gross Profit	65.7	61.9	60.9	61.5	60.7
MAT	6.7	5.2	5.2	5.9	7.5
Performance Income	57.3	53.4	52.7	52.8	50.0
Net Income	30.0	28.0	27.6	27.6	26.1
Ex-U.S.A.					
Sales	16.0	18.8	20.6	21.5	24.5
Gross Profit	10.2	10.7	11.1	9.8	11.4
MAT	1.8	2.4	3.1	3.7	3.8
Performance Income	8.9	8.9	8.4	5.8	7.0
Net Income	4.7	4.7	4.4	3.2	3.8
Capital Employed	4.8	8.2	12.8	15.7	20.9
% ROC	97.9	57.3	34.4	20.4	18.2
As a % of Sales:					
Gross Profit	63.8	56.9	53.9	45.6	46.5
MAT	11.3	12.8	15.0	17.2	15.5
Performance Income	55.6	47.3	40.8	27.0	28.6
Net Income	29.4	25.0	21.4	14.9	15.5

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	MILLION OF POUNDS OF TECHNICAL				
Muscantine, Iowa	32	40	45	92	92
Queeny, Missouri	44	59	68	51	51

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	1.4	2.8	4.1	9.3	11.8
Gross Property Additions	9.6	18.1	46.0	12.5	18.2
Gross Property Retirements	0.2	0.6	0.6	0.6	0.2
Fixed Capital	37.1	22.6	94.1	107.6	127.0
Working Capital	46.5	107.9	117.9	157.4	173.0
Gross Investment	83.8	160.5	212.0	265.0	300.0
Avg. Selling Price/Unit (Merchant)	2.55	2.87	2.89	3.04	3.08
Avg. Cost/Unit	0.88	1.10	1.14	1.20	1.25
Total Production - MM Units	78.3	103.9	107.1	112.7	102.0
Total Capacity - MM Units	76.0	99.0	113.0	143.0	143.0
Percent Utilization - %	103	105	95	79	71
Merchant Sales - MM Units	65.2	90.8	94.3	104.2	100.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	65.2	90.8	94.3	104.2	100.5
* Market Share (Mill) - %	-	-	-	-	-
U.S.					
Depreciation	1.3	2.6	3.8	8.7	10.9
Gross Property Additions	8.9	17.2	42.9	12.5	16.4
Gross Property Retirements	0.2	0.6	0.6	0.6	0.2
Fixed Capital	34.8	49.9	87.8	100.5	116.9
Working Capital	43.2	101.6	110.0	147.0	159.2
Gross Investment	78.0	151.5	192.8	247.5	276.1
Avg. Selling Price/Unit (Merchant)	2.49	2.83	2.86	3.04	3.08
Avg. Cost/Unit	0.86	1.09	1.12	1.17	1.21
Total Production - MM Units	79.3	103.9	107.1	112.7	102.0
Total Capacity - MM Units	76.0	99.0	113.0	143.0	143.0
Percent Utilization - %	103	105	95	79	71
Merchant Sales - MM Units	60.3	85.5	88.0	97.3	92.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	60.3	85.5	88.0	97.3	92.5
* Market Share (Mill) - %	32	37	53	52	52
EXPORT AND U.S. SOUTHWEST	30	29	41	40	40
Depreciation	0.1	0.2	0.3	0.6	0.9
Gross Property Additions	0.7	1.1	3.1	-	1.8
Gross Property Retirements	-	-	-	-	-
Fixed Capital	2.5	2.7	6.3	7.1	10.1
Working Capital	3.3	6.3	7.9	10.4	13.8
Gross Investment	5.8	9.0	14.2	17.5	23.9
Avg. Selling Price/Unit (Merchant)	3.26	3.52	3.27	3.12	3.06
Avg. Cost/Unit	1.18	1.51	1.51	1.70	1.64
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	4.9	5.3	6.3	6.9	8.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	4.9	5.3	6.3	6.9	8.0
Market Share (Mill) - %	-	-	-	-	-

* % of treated acres in Midwest

COMMENTS:
Lasso is a proprietary, preemergent herbicide for the control of most annual grasses and some annual broadleaf weeds in corn, soybeans and specific minor crops. The principal market for this product is the United States Cornbelt. Other markets exist in the U. S. outside the Cornbelt and in Canada, Europe and Latin America. Lasso's market share in each of these various areas is as follows:

Cornbelt - U.S.
EX-Cornbelt - U.S.
Brazil

Corn 52%; Soybean 40%
Corn 28%; Soybean 18%
Soybean 7%

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.2	10.2	13.6	15.5	19.1
Gross Profit	5.6	3.3	5.0	6.8	7.9
MAT	1.2	1.6	2.2	2.8	3.1
Performance Income	4.7	1.6	3.3	3.7	4.7
Net Income	2.5	0.8	1.9	2.0	2.5
Capital Employed	3.2	9.7	11.7	9.6	15.3
% ROC	78.1	8.2	16.2	20.8	16.3
As a % of Sales:					
Gross Profit	68.3	32.4	36.8	43.9	41.4
MAT	14.6	15.7	16.2	18.1	16.2
Performance Income	57.3	15.7	24.3	23.9	24.6
Net Income	30.5	7.8	14.0	12.9	13.1
U.S.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
EXPORT AND Ex-U.S.A.					
Sales	8.2	10.2	13.6	15.5	19.1
Gross Profit	5.6	3.3	5.0	6.8	7.9
MAT	1.2	1.6	2.2	2.8	3.1
Performance Income	4.7	1.6	3.3	3.7	4.7
Net Income	2.5	0.8	1.9	2.0	2.5
Capital Employed	3.2	9.7	11.7	9.6	15.3
% ROC	78.1	8.2	16.2	20.8	16.3
As a % of Sales:					
Gross Profit	68.3	32.4	36.8	43.9	41.4
MAT	14.6	15.7	16.2	18.1	16.2
Performance Income	57.3	15.7	24.3	23.9	24.6
Net Income	30.5	7.8	14.0	12.9	13.1

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

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	MILLION OF POUNDS OF TECHNICAL				
Muscantine, Iowa	3.2	-	-	7.5	7.5
Luling, Louisiana	-	6.0	12.0	12.0	12.0
KORAG, Korea	-	4.5	7.4	7.4	7.4

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.1	0.2	0.3	0.2	0.2
Gross Property Additions	0.1	2.4	0.1	0.2	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.6	5.5	4.0	4.2	5.4
Working Capital	2.7	5.9	9.1	7.1	12.0
Gross Investment	4.3	11.4	13.1	11.3	17.4
Avg. Selling Price/Unit (Merchant)	2.66	1.95	1.95	2.26	2.28
Avg. Cost/Unit	0.82	1.32	1.23	1.27	1.34
Total Production - MM Units	3.2	4.3	4.0	5.2	5.6
Total Capacity - MM Units	3.2	10.5	19.4	26.9	26.9
Percent Utilization - %	100	41	21	19	21
Merchant Sales - MM Units	3.1	5.2	7.0	6.8	8.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.1	5.2	7.0	6.8	8.4
Market Share (MM) - %	-	-	-	-	-
U.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
EXPORT AND SALES					
Depreciation	0.1	0.2	0.3	0.2	0.2
Gross Property Additions	0.1	2.4	0.1	0.2	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.6	5.5	4.0	4.2	5.4
Working Capital	2.7	5.9	9.1	7.1	12.0
Gross Investment	4.3	11.4	13.1	11.3	17.4
Avg. Selling Price/Unit (Merchant)	2.66	1.95	1.95	2.26	2.28
Avg. Cost/Unit	0.82	1.32	1.23	1.27	1.34
Total Production - MM Units	3.2	4.3	4.0	5.2	5.6
Total Capacity - MM Units	3.2	10.5	19.4	26.9	26.9
Percent Utilization - %	100	41	21	19	21
Merchant Sales - MM Units	3.1	5.2	7.0	6.8	8.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.1	5.2	7.0	6.8	8.4
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Nachete is a preemergent herbicide that controls annual grasses, broadleaf and aquatic weeds normally found in transplanted, irrigated rice. The principal markets for this product are in Asia with specific target countries being Korea, Taiwan and Japan. Nachete's approximate market share in each of these countries is as follows: Japan 10% in rice; Taiwan 60% in rice; Korea 70% in rice and 80% in barley/wheat. Primary competitors are TOK and Propanil (Nobin & Haas), MO (Mitsui), Saturn (Rusini) and the 2,4-D's.

0682971

AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital					See Thru	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977		1977	1978
World-Wide							
Sales	40.4	45.9	41.6	49.6	51.1	49.6	51.1
Gross Profit	21.2	22.5	15.4	16.4	16.2	17.1	16.6
MAT	1.2	1.3	1.4	2.2	3.0	2.2	3.0
Performance Income	19.3	20.6	12.5	13.0	11.8	13.7	12.2
Net Income	10.2	10.8	6.4	6.5	5.9	6.9	6.1
Capital Employed	20.6	28.7	47.7	55.9	63.8	58.1	66.4
% ROC	49.5	37.6	13.4	11.6	9.2	11.9	9.2
As a % of Sales:							
Gross Profit	52.2	49.0	37.0	33.1	31.7	34.5	32.5
MAT	3.0	2.8	3.4	4.4	5.9	4.4	5.9
Performance Income	47.8	44.9	30.0	26.2	23.1	27.6	23.9
Net Income	25.2	23.5	15.4	13.1	11.5	13.9	11.9
U.S.							
Sales	28.2	35.4	30.5	35.0	36.6	35.0	36.6
Gross Profit	13.5	16.2	11.4	12.2	12.8	12.7	13.1
MAT	0.5	0.6	0.7	1.4	2.3	1.4	2.3
Performance Income	12.1	14.6	9.3	10.1	9.6	10.6	9.9
Net Income	6.4	7.6	4.6	4.9	4.7	5.2	4.8
Capital Employed	17.0	24.1	38.0	41.9	47.7	43.5	49.7
% ROC	37.6	31.5	12.1	11.7	9.9	12.0	9.7
As a % of Sales:							
Gross Profit	47.9	45.8	37.4	34.9	35.0	36.3	35.8
MAT	1.8	1.7	2.3	4.0	6.3	4.0	6.3
Performance Income	42.9	41.2	30.5	28.9	26.2	30.3	27.0
Net Income	22.7	21.5	15.1	14.0	12.8	14.9	13.1
EXPORT AND Ex-U.S.A.							
Sales	12.2	10.5	11.1	14.6	14.5	14.6	14.5
Gross Profit	7.6	6.3	4.0	4.2	3.4	4.4	3.5
MAT	0.7	0.7	0.7	0.8	0.7	0.8	0.7
Performance Income	7.2	6.0	3.2	2.9	2.2	3.1	2.3
Net Income	3.8	3.2	1.8	1.6	1.2	1.7	1.3
Capital Employed	3.6	4.6	9.7	14.0	16.1	14.6	16.7
% ROC	105.6	69.6	18.6	11.4	7.5	11.6	7.8
As a % of Sales:							
Gross Profit	62.3	60.0	36.0	28.8	23.4	30.1	24.1
MAT	5.7	6.7	6.3	5.5	4.8	5.5	4.8
Performance Income	59.0	57.1	28.8	19.9	15.2	21.2	15.9
Net Income	31.1	30.5	16.2	11.0	8.3	11.6	9.0

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

MILLION OF POUNDS OF TECHNICAL

Anniston, Alabama	48	48	48	48	60	48	60
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0682972

PARATHION
AMOUNTS IN MILLIONS

MAR-14

	Transfer Price/Cost & Capital					See-Thru	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977	1978	1977	1978
World-Wide							
Depreciation	1.6	1.0	1.2	2.7	3.8		
Gross Property Additions	0.6	4.0	14.2	17.1	16.4		
Gross Property Retirements	0.2	0.5	0.2	0.1	0.5		
Fixed Capital	17.3	24.4	37.0	51.6	62.0		
Working Capital	16.3	19.4	25.1	21.0	22.6		
Gross Investment	33.6	43.8	62.1	72.6	84.6	68.6	91.0
Avg. Selling Price/Unit (Merchant)	0.87	1.09	1.12	1.15	1.26		
Avg. Cost/Unit	0.42	0.56	0.71	0.77	0.86	0.76	0.85
Total Production - MM Units	42.0	47.1	40.5	31.6	39.6		
Total Capacity - MM Units	48.0	48.0	48.0	48.0	40.0		
Percent Utilization - %	88	98	84	66	66		
Merchant Sales - MM Units	46.5	42.1	37.1	43.0	40.5		
Intercompany Sales - MM Units	-	-	-	-	-		
Total - MM Units	46.5	42.1	37.1	43.0	40.5		
Market Share (MI) - %	-	-	-	-	-		
U.S.							
Depreciation	1.3	0.8	1.0	2.0	2.8		
Gross Property Additions	0.5	3.4	11.3	17.1	16.3		
Gross Property Retirements	0.2	0.4	0.2	0.1	0.5		
Fixed Capital	14.2	20.5	29.5	38.6	46.4		
Working Capital	13.4	16.3	20.0	15.7	16.9		
Gross Investment	27.6	36.8	49.5	54.3	63.3	64.3	74.4
Avg. Selling Price/Unit (Merchant)	0.73	1.00	1.03	1.09	1.21		
Avg. Cost/Unit	0.38	0.54	0.65	0.71	0.79	0.69	0.78
Total Production - MM Units	42.0	47.1	40.5	31.6	39.6		
Total Capacity - MM Units	48.0	48.0	48.0	48.0	40.0		
Percent Utilization - %	88	98	84	66	66		
Merchant Sales - MM Units	38.3	35.4	28.6	32.2	30.3		
Intercompany Sales - MM Units	-	-	-	-	-		
Total - MM Units	38.3	35.4	28.6	32.2	30.3		
Market Share (MI) - %	63	74	74	71	71		
EXPORT AND Ex-U.S.A.							
Depreciation	0.3	0.2	0.2	0.7	1.0		
Gross Property Additions	0.1	0.6	2.9	-	0.1		
Gross Property Retirements	-	0.1	-	-	-		
Fixed Capital	3.1	3.9	7.5	13.0	15.6		
Working Capital	2.9	3.1	5.1	5.3	5.7		
Gross Investment	6.0	7.0	12.6	18.3	21.3	12.2	14.1
Avg. Selling Price/Unit (Merchant)	1.48	1.58	1.48	1.35	1.42		
Avg. Cost/Unit	0.56	0.63	0.95	0.96	1.09	0.94	1.00
Total Production - MM Units	-	-	-	-	-		
Total Capacity - MM Units	-	-	-	-	-		
Percent Utilization - %	-	-	-	-	-		
Merchant Sales - MM Units	8.2	6.7	7.5	10.8	10.2		
Intercompany Sales - MM Units	-	-	-	-	-		
Total - MM Units	8.2	6.7	7.5	10.8	10.2		
Market Share (MI) - %	-	-	-	-	-		

COMMENTS:

Parathion is an organophosphorus insecticide used for control of a broad spectrum of insects found predominantly in cotton and to a lesser degree in sorghum, wheat, soybeans, fruits, vegetables and other minor crops. We are the largest and lowest cost producer of Parathion and hold a strong position in the two principal world markets, the United States and Central America, where we own approximately 70% share of the U.S. Parathion market and a 40% share in Central America. World capacity for Parathion is shared by eight companies. Of the eight, Monsanto and Bayer are the largest and are the only producers having a basic position in the major raw material Paranitrophenol (PNP).

0682973

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	0.7	1.9	2.1	2.3	4.0
Gross Profit	0.5	1.4	1.4	1.4	2.0
MAT	0.7	0.7	1.2	2.0	2.6
Performance Income	(0.2)	0.6	0.2	(0.7)	(0.7)
Net Income	(0.1)	0.3	0.1	(0.4)	(0.4)
Capital Employed	1.0	2.4	1.0	3.5	2.7
% ROC	-	12.5	10.0	-	-
As a % of Sales:					
Gross Profit	71.4	73.7	66.7	60.9	50.0
MAT	100.0	36.8	57.1	87.0	65.0
Performance Income	-	31.6	9.5	-	-
Net Income	-	15.8	4.8	-	-
U.S.					
Sales	0.7	1.9	2.0	2.0	2.6
Gross Profit	0.5	1.4	1.3	1.2	1.4
MAT	0.6	0.6	1.2	1.5	1.6
Performance Income	(0.1)	0.7	0.1	(0.3)	(0.3)
Net Income	(0.1)	0.3	0.1	(0.2)	(0.2)
Capital Employed	1.0	2.3	1.0	2.6	1.8
% ROC	-	13.0	10.0	-	-
As a % of Sales:					
Gross Profit	71.4	73.7	65.0	60.0	53.8
MAT	85.7	31.6	60.0	75.0	61.5
Performance Income	-	36.8	5.0	-	-
Net Income	-	15.8	5.0	-	-
EXPORT AND Ex-U.S.A.					
Sales	-	-	0.1	0.3	1.4
Gross Profit	-	-	0.1	0.2	0.6
MAT	0.1	0.1	-	0.5	1.0
Performance Income	(0.1)	(0.1)	0.1	(0.4)	(0.4)
Net Income	-	-	-	(0.2)	(0.2)
Capital Employed	-	0.1	-	0.9	0.9
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	100.00	66.7	42.9
MAT	-	-	-	166.7	71.4
Performance Income	-	-	100.0	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	MILLION OF POUNDS OF TECHNICAL			
Luling, Louisiana	-	0.3	0.4	-
Queeny, Missouri	-	-	-	0.7

0682974

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	0.1	0.1	0.1	0.1
Gross Property Additions	-	0.5	-	0.5	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.1	2.6	0.7	1.0	1.0
Working Capital	0.4	1.0	0.4	2.8	2.1
Gross Investment	1.5	3.6	1.1	3.8	3.1
Avg. Selling Price Unit (Merchant)	-	11.00	7.81	5.97	6.06
Avg. Cost Unit	-	2.57	2.33	2.41	2.96
Total Production - MM Units	-	0.3	0.4	0.7	0.6
Total Capacity - MM Units	-	0.3	0.4	0.7	2.3
Percent Utilization - %	-	100	100	100	26
Merchant Sales - MM Units	0.1	0.2	0.3	0.4	0.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.1	0.2	0.3	0.4	0.4
Market Share (MII) - %	-	-	-	-	-
U.S.					
Depreciation	-	0.1	0.1	0.1	0.1
Gross Property Additions	-	0.5	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.1	2.6	0.7	0.8	0.7
Working Capital	0.4	0.9	0.4	2.1	1.4
Gross Investment	1.5	3.5	1.1	2.9	2.1
Avg. Selling Price Unit (Merchant)	-	11.00	7.91	6.02	5.97
Avg. Cost Unit	-	2.57	2.81	2.39	2.61
Total Production - MM Units	-	-	-	0.7	0.6
Total Capacity - MM Units	-	-	-	0.7	2.3
Percent Utilization - %	-	-	-	100	26
Merchant Sales - MM Units	0.1	0.2	0.3	0.3	0.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.1	0.2	0.3	0.3	0.4
Market Share (MII) - %	-	-	-	-	-
EXPORT AND EX-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	0.2	0.3
Working Capital	-	0.1	-	0.2	0.7
Gross Investment	-	0.1	-	0.9	1.0
Avg. Selling Price Unit (Merchant)	-	-	-	5.77	6.23
Avg. Cost Unit	-	-	-	2.62	3.62
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	0.1	0.2
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	0.1	0.2
Market Share (MII) - %	-	-	-	-	-

COMMENTS:

Polaris is the world's first commercial sugar cane ripener. Polaris has the demonstrated ability to stimulate the ripening process (conversion of energy from cane growth to sucrose) resulting in an improvement in sugar yields of approximately 10%. Primary markets are the United States (Hawaii, Florida and Louisiana) and selected Latin American countries (the Caribbean and Brazil).

0682975

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	27.6	28.4	26.3	22.9	21.0
Gross Profit	16.7	13.7	11.6	10.6	9.4
MAT	1.4	1.4	1.6	1.2	2.1
Performance Income	15.1	11.0	9.1	8.7	6.6
Net Income	7.6	5.6	4.7	4.5	3.5
Capital Employed	7.1	22.3	18.3	17.5	11.4
% ROC	107.0	25.1	25.7	25.7	30.7
As a % of Sales:					
Gross Profit	60.5	48.2	44.1	46.3	44.8
MAT	5.1	4.9	6.1	5.2	10.0
Performance Income	54.7	38.7	34.6	38.0	31.4
Net Income	27.5	19.7	17.9	19.7	16.7
U.S.					
Sales	25.7	25.5	23.9	20.7	18.6
Gross Profit	15.4	11.8	10.2	9.2	7.9
MAT	1.3	1.3	1.5	0.9	1.8
Performance Income	13.8	9.1	7.8	7.8	5.6
Net Income	6.9	4.6	3.9	4.0	2.9
Capital Employed	6.8	20.3	16.6	15.4	10.1
% ROC	101.5	22.7	23.5	26.0	28.7
As a % of Sales:					
Gross Profit	59.9	46.3	42.7	44.4	42.5
MAT	5.1	5.1	6.3	4.3	9.7
Performance Income	53.7	35.7	32.6	37.7	30.1
Net Income	26.8	18.0	16.3	19.3	15.6
EXPORT AND Ex-U.S.A.					
Sales	1.9	2.9	2.4	2.2	2.4
Gross Profit	1.3	1.9	1.4	1.4	1.5
MAT	0.1	0.1	0.1	0.3	0.3
Performance Income	1.3	1.9	1.3	0.9	1.0
Net Income	0.7	1.0	0.8	0.5	0.6
Capital Employed	0.3	2.0	1.7	2.1	1.3
% ROC	233.3	50.0	47.1	23.8	46.2
As a % of Sales:					
Gross Profit	68.4	65.5	58.3	63.6	62.5
MAT	5.3	3.4	4.2	13.6	12.5
Performance Income	68.4	65.5	54.2	40.9	41.7
Net Income	36.8	34.5	33.3	22.7	25.0

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	MILLION OF POUNDS OF TECHNICAL				
Muscantine, Iowa	13	13	11	19	19

0682976

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.8	0.8	0.8	0.8
Gross Property Additions	0.1	-	-	0.1	-
Gross Property Retirements	-	0.1	-	-	-
Fixed Capital	5.7	9.0	7.6	6.0	6.0
Working Capital	4.0	18.4	14.2	15.6	10.3
Gross Investment	9.7	27.4	21.8	21.6	16.3
Avg. Selling Price/Unit (Merchant)	1.90	2.39	2.48	2.63	2.73
Avg. Cost/Unit	0.74	1.25	1.39	1.41	1.51
Total Production - MM Units	8.7	9.9	10.8	8.5	9.3
Total Capacity - MM Units	13.0	13.0	11.0	19.0	19.0
Percent Utilization - %	67	76	98	45	49
Merchant Sales - MM Units	14.6	11.9	10.6	8.7	7.7
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	14.6	11.9	10.6	8.7	7.7
Market Share (MM) - %	-	-	-	-	-
U.S.					
Depreciation	0.2	0.7	0.7	0.7	0.7
Gross Property Additions	0.1	-	-	0.1	-
Gross Property Retirements	-	0.1	-	-	-
Fixed Capital	5.4	8.2	6.9	5.3	5.3
Working Capital	3.8	16.7	12.9	11.8	9.1
Gross Investment	9.3	24.9	19.8	19.1	14.4
Avg. Selling Price/Unit (Merchant)	1.86	2.36	2.49	2.69	2.74
Avg. Cost/Unit	0.74	1.26	1.43	1.49	1.57
Total Production - MM Units	8.7	9.9	10.8	8.5	9.3
Total Capacity - MM Units	13.0	11.0	11.0	19.0	19.0
Percent Utilization - %	67	76	98	45	49
Merchant Sales - MM Units	13.9	10.8	9.6	7.7	6.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	13.9	10.8	9.6	7.7	6.8
Market Share (MM) - %	-	-	-	-	-
EXPORT AND Excl. U.S.A.					
Depreciation	-	0.1	0.1	0.1	0.1
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	0.3	0.8	0.7	0.7	0.7
Working Capital	0.2	1.7	1.3	1.8	1.2
Gross Investment	0.5	2.5	2.0	2.5	1.9
Avg. Selling Price/Unit (Merchant)	2.65	2.75	2.40	2.20	2.67
Avg. Cost/Unit	0.78	0.92	1.00	0.80	1.00
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	0.7	1.1	1.0	1.0	0.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.7	1.1	1.0	1.0	0.9
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Ramrod is a second generation acetanilide and is the forerunner of Lasso in the preemergent grass herbicide market. While it has been virtually replaced in the marketplace by Lasso, specialty markets still exist on selected crops, principally grain and sorghum.

0682977

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	3.1	14.3	51.3	86.8	113.0
Gross Profit	0.7	7.4	36.2	61.5	76.0
MAT	4.0	5.5	11.7	18.4	25.9
Performance Income	(3.4)	1.9	24.8	41.8	48.4
Net Income	(1.8)	1.0	13.7	22.6	25.7
Capital Employed	3.7	17.8	35.3	65.2	115.7
% ROC	-	5.6	38.8	34.7	22.2
As a % of Sales:					
Gross Profit	22.6	51.7	70.6	70.9	67.3
MAT	129.0	38.5	22.8	21.2	22.9
Performance Income	-	13.3	48.3	48.2	42.8
Net Income	-	7.0	26.7	26.0	22.7
U.S.					
Sales	1.9	5.3	26.4	36.2	46.0
Gross Profit	0.2	2.6	19.4	26.2	30.4
MAT	3.3	3.3	7.9	10.3	13.7
Performance Income	(3.2)	(0.9)	10.9	14.3	14.9
Net Income	(1.7)	(0.5)	5.7	7.2	7.3
Capital Employed	2.5	6.8	17.6	26.7	47.8
% ROC	-	-	32.4	27.0	15.3
As a % of Sales:					
Gross Profit	10.5	49.1	73.5	72.4	66.1
MAT	173.7	62.3	29.9	28.5	29.8
Performance Income	-	-	41.3	39.5	32.4
Net Income	-	-	21.6	19.9	15.9
EXPORT AND Ex-U.S.A.					
Sales	1.2	9.0	24.9	50.6	67.0
Gross Profit	0.5	4.8	16.8	35.3	45.6
MAT	0.7	2.2	3.8	8.1	12.2
Performance Income	(0.2)	2.8	13.9	27.5	33.5
Net Income	(0.1)	1.5	8.0	15.4	18.4
Capital Employed	1.2	11.0	17.7	38.5	67.9
% ROC	-	13.6	45.2	40.0	27.1
As a % of Sales:					
Gross Profit	41.7	53.3	67.5	69.8	68.1
MAT	58.3	24.4	15.3	16.0	18.2
Performance Income	-	31.1	55.8	54.3	50.0
Net Income	-	16.7	32.1	30.4	27.5

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	MILLION OF POUNDS OF TECHNICAL				
Luling, Louisiana	-	1.5	4.8	10.0	15.0

0682978

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.1	0.1	1.1	2.9	4.2
Gross Property Additions	-	9.6	11.4	19.0	28.9
Gross Property Retirements	-	-	-	0.1	0.2
Fixed Capital	3.9	13.3	20.4	42.0	70.9
Working Capital	1.3	6.3	17.2	27.8	52.0
Gross Investment	5.2	19.8	37.6	69.8	122.9
Avg. Selling Price/Unit (Merchant)	11.92	13.76	14.25	14.29	15.00
Avg. Cost/Unit	9.42	6.60	4.19	4.15	4.93
Total Production - MM Units	-	1.5	4.8	8.1	10.5
Total Capacity - MM Units	-	1.5	4.8	10.0	15.0
Percent Utilization - %	-	100	100	81	70
Merchant Sales - MM Units	0.3	1.0	3.6	6.1	7.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.3	1.0	3.6	6.1	7.5
Market Share (MM) - %	-	-	-	-	-
U. S.					
Depreciation	0.1	-	0.6	1.2	1.7
Gross Property Additions	-	3.6	5.7	10.5	20.6
Gross Property Retirements	-	-	-	0.1	0.2
Fixed Capital	2.6	5.0	10.2	17.2	29.3
Working Capital	0.9	2.5	8.6	11.4	21.5
Gross Investment	3.5	7.5	18.8	28.6	50.8
Avg. Selling Price/Unit (Merchant)	13.44	13.49	14.46	14.48	14.87
Avg. Cost/Unit	11.96	6.75	3.88	3.97	5.08
Total Production - MM Units	-	1.5	4.8	8.1	10.5
Total Capacity - MM Units	-	1.5	4.8	10.0	15.0
Percent Utilization - %	-	100	100	81	70
Merchant Sales - MM Units	0.2	0.4	1.8	2.5	3.1
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.2	0.4	1.8	2.5	3.1
Market Share (MM) - %	-	-	-	-	-
EXPORT AND EX-L.S.A.					
Depreciation	-	0.1	0.5	1.8	2.5
Gross Property Additions	-	6.0	5.7	0.5	8.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.3	8.3	10.2	24.8	41.6
Working Capital	0.4	4.0	8.6	16.4	30.5
Gross Investment	1.7	12.3	18.8	41.2	72.1
Avg. Selling Price/Unit (Merchant)	10.19	13.93	13.83	14.15	15.10
Avg. Cost/Unit	6.52	6.51	4.50	4.27	4.82
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	0.1	0.6	1.8	3.6	4.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.1	0.6	1.8	3.6	4.4
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Roundup is a postemergent, non-selective herbicide that controls most annual and perennial weeds in agricultural or industrial situations. Our primary focus through 1980 will be the "hard to kill weeds" which is estimated to be a moderate to serious problem in 5 - 7% of the world's cultivated areas. Most competitive chemicals and cultural practices have significant disadvantages when compared to Roundup, and none are as universally effective as Roundup in controlling hard to kill weeds. Growth in international markets is critical to the long term success of Roundup, it is expected that 70% of Roundup sales will be in markets outside the U.S.

0682979

ANHYDROUS AMMONIA
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	6.5	9.8	7.0	6.9	6.9
Gross Profit	2.4	6.5	3.5	4.5	4.5
MAT	0.3	0.3	0.3	0.6	0.7
Performance Income	2.1	6.4	3.6	4.4	4.1
Net Income	1.1	3.4	1.8	2.2	2.2
Capital Employed	9.7	20.5	13.7	10.5	7.5
% ROC	11.3	16.6	13.1	21.0	29.3
As a % of Sales:					
Gross Profit	36.9	66.3	50.5	65.2	65.2
MAT	4.6	3.1	4.3	8.7	10.1
Performance Income	32.3	65.3	51.4	63.8	59.4
Net Income	16.9	34.7	25.7	31.9	31.9
U.S.					
Sales	6.5	9.8	7.0	6.9	6.9
Gross Profit	2.4	6.5	3.5	4.5	4.5
MAT	0.3	0.3	0.3	0.6	0.7
Performance Income	2.1	6.4	3.6	4.4	4.1
Net Income	1.1	3.4	1.8	2.2	2.2
Capital Employed	9.7	20.5	13.7	10.5	7.5
% ROC	11.3	16.6	13.1	21.0	29.3
As a % of Sales:					
Gross Profit	36.9	66.3	50.0	65.2	65.2
MAT	4.6	3.1	4.3	8.7	10.1
Performance Income	32.3	65.3	51.4	63.8	59.4
Net Income	16.9	34.7	25.7	31.9	31.9
EXPORT AND Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	THOUSANDS OF TONS				
Luling, Louisiana	430	430	440	630	630
					0682980

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	1.6	0.9	0.9	6.3	6.6
Gross Property Additions	1.2	1.1	37.2	9.9	4.3
Gross Property Retirements	0.5	0.4	0.2	0.1	0.2
Fixed Capital	15.2	21.7	15.7	15.0	8.8
Working Capital	2.5	3.5	0.6	2.5	2.5
Gross Investment	17.7	25.2	16.3	17.5	11.3
Avg. Selling Price/Unit (Merchant)	166.00	238.00	145.00	106.00	81.70
Avg. Cost/Unit	105.00	80.00	73.00	37.00	30.00
Total Production - MM Units	350	408	419	587	572
Total Capacity - MM Units	430	430	440	630	630
Percent Utilization - %	81	95	95	93	91
Merchant Sales - MM Units	39	41	40	45	81
Intercompany Sales - MM Units	240	174	244	332	313
Total - MM Units	279	215	292	397	394
* Market Share (MM) - %	3	3	3	3	3
U.S.					
Depreciation	1.6	0.9	0.9	6.3	6.6
Gross Property Additions	1.2	1.1	37.2	9.9	4.3
Gross Property Retirements	0.5	0.4	0.2	0.1	0.2
Fixed Capital	15.2	21.7	15.7	15.0	8.8
Working Capital	2.5	3.5	0.6	2.5	2.5
Gross Investment	17.7	25.2	16.3	17.5	11.3
Avg. Selling Price/Unit (Merchant)	166.00	238.00	145.00	106.00	81.00
Avg. Cost/Unit	105.00	80.00	73.00	37.00	30.00
Total Production - MM Units	350	408	419	587	572
Total Capacity - MM Units	430	430	440	630	630
Percent Utilization - %	81	95	95	93	91
Merchant Sales - MM Units	39	41	40	45	81
Intercompany Sales - MM Units	240	174	244	332	313
Total - MM Units	279	215	292	397	394
* Market Share (MM) - %	3	3	3	3	3
EXPORT AND EX-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

* % of total industry capacity

COMMENTS:
Monsanto produces anhydrous ammonia for the dual purpose of supplying internal needs, primarily in the synthetic fibers area, and for upgrading to ammonium sulfate for sale to the agricultural and explosives industries. As a basic chemical it has been subject over the years to drastic supply/demand imbalances which have at times produced wide ranges of selling prices and profit levels.

The primary ingredient to the manufacture of ammonia is natural gas and Monsanto is fortunate to have a long term (thru 1983) contract for gas at a price which is very attractive.

There are 65 ammonia producers in the U. S. producing 24 million tons annually with new plants under construction for start-up prior to 1980 adding 10% to U.S. capacity. A new ammonia plant (Monsanto's share - 210 thousand tons/year) was completed in December 1976 at Monsanto's Luling Plant.

0682981

AMMONIUM NITRATE

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	25.4	32.9	27.4	29.0	28.2
Gross Profit	16.0	19.9	12.6	11.7	10.4
MAT	0.9	0.6	0.9	1.4	1.6
Performance Income	15.1	19.4	11.7	10.0	8.4
Net Income	7.9	10.1	6.1	5.0	4.0
Capital Employed	11.0	9.4	25.6	30.0	39.4
% ROC	71.8	107.4	23.8	16.7	10.2
As a % of Sales:					
Gross Profit	63.0	60.5	46.0	40.3	36.9
MAT	3.5	1.8	3.3	4.8	5.7
Performance Income	59.4	59.0	42.7	34.5	29.8
Net Income	31.1	30.7	22.3	17.2	14.2
U.S.					
Sales	25.4	32.9	27.4	29.0	28.2
Gross Profit	16.0	19.9	14.8	11.7	10.4
MAT	0.9	0.6	0.9	1.4	1.6
Performance Income	15.1	19.4	11.7	10.0	8.4
Net Income	7.9	10.1	6.1	5.0	4.0
Capital Employed	11.0	9.4	25.6	30.0	39.4
% ROC	71.8	107.4	23.8	16.7	10.2
As a % of Sales:					
Gross Profit	63.0	60.5	54.0	40.3	36.9
MAT	3.5	1.8	3.3	4.8	5.7
Performance Income	59.4	59.0	42.7	34.5	29.8
Net Income	31.1	30.7	22.3	17.2	14.2
EXPORT AND Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0682902

THOUSANDS OF TONS

Luling, Louisiana	365	365	365	365	365
El Dorado, Arkansas	340	340	340	340	340

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.8	1.7	1.2	0.7	0.9
Gross Property Additions	0.3	1.1	13.4	1.6	2.0
Gross Property Retirements	0.3	0.4	0.5	0.1	0.4
Fixed Capital	28.4	34.2	46.7	54.6	72.6
Working Capital	6.0	5.6	4.2	3.4	4.0
Gross Investment	34.4	39.8	50.9	58.0	76.6
Avg. Selling Price/Unit (Merchant)	128.00	132.00	101.60	108.00	95.00
Avg. Cost/Unit	47.00	52.00	46.70	65.00	60.00
Total Production - MM Units	334	416	459	438	545
Total Capacity - MM Units	705	705	705	705	705
Percent Utilization - %	47	59	65	62	77
Merchant Sales - MM Units	198	249	270	268	296
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	198	249	270	268	296
* Market Share (Mill) - %	6	8	7	9	9
U.S.					
Depreciation	0.8	1.7	1.2	0.7	0.9
Gross Property Additions	0.3	1.1	13.4	1.6	2.0
Gross Property Retirements	0.3	0.4	0.5	0.1	0.4
Fixed Capital	28.4	34.2	46.7	54.6	72.6
Working Capital	6.0	5.6	4.2	3.4	4.0
Gross Investment	34.4	39.8	50.9	58.0	76.6
Avg. Selling Price/Unit (Merchant)	128.00	132.00	101.60	108.00	95.00
Avg. Cost/Unit	47.00	52.00	46.70	65.00	60.00
Total Production - MM Units	334	416	459	438	545
Total Capacity - MM Units	705	705	705	705	705
Percent Utilization - %	47	59	65	62	77
Merchant Sales - MM Units	198	249	270	268	296
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	198	249	270	268	296
* Market Share (Mill) - %	6	8	7	9	9
EXPORT AND EX-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mill) - %	-	-	-	-	-

COMMENTS:

Combined fertilizer and explosive markets.
Ammonium nitrate is a prilled nitrogen product serving the agricultural and explosive markets. Nitrate provides most of the explosives energy used today in mining with no economical substitutes available. Ammonium nitrate is a preferred solid nitrogen fertilizer for use on southern pastures, lands, small grains and citrus. Explosive uses have exhibited a steady growth which is expected to continue. Fertilizer uses are projected at very small growth.

Nonsanto is the largest single producer with approximately 10% of the U. S. capacity. During 1977 there was a 4% capacity expansion in the industry, with announced expansions through 1990 at less than 5%.

0682983

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	21.4	29.3	27.1	26.0	27.4
Gross Profit	11.4	15.7	12.7	8.9	8.7
MAT	0.5	0.6	1.0	0.9	1.1
Performance Income	10.3	14.7	11.4	7.8	7.2
Net Income	5.4	7.7	6.0	4.0	3.7
Capital Employed	3.1	6.6	16.3	12.4	15.1
% ROC	174.2	116.7	36.8	32.3	24.5
As a % of Sales:					
Gross Profit	53.3	53.6	46.9	34.2	31.8
MAT	2.3	2.0	3.7	3.5	4.0
Performance Income	48.1	50.2	42.1	30.0	26.3
Net Income	25.2	26.3	22.1	15.4	13.5
U.S.					
Sales	21.4	29.3	27.1	26.0	27.4
Gross Profit	11.4	15.7	12.7	8.9	8.7
MAT	0.5	0.6	1.0	0.9	1.1
Performance Income	10.3	14.7	11.4	7.8	7.2
Net Income	5.4	7.7	6.0	4.0	3.7
Capital Employed	3.1	6.6	16.3	12.4	15.1
% ROC	174.2	116.7	36.8	32.3	24.5
As a % of Sales:					
Gross Profit	53.3	53.6	46.9	34.2	31.8
MAT	2.3	2.0	3.7	3.5	4.0
Performance Income	48.1	50.2	42.1	30.0	26.3
Net Income	25.2	26.3	22.1	15.4	13.5
EXPORT AND Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	THOUSANDS OF TONS				
Total Capacity	115	130	133	134	152

0662984

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.9	0.7	0.2	0.2
Gross Property Additions	0.1	0.4	0.2	0.5	1.1
Gross Property Retirements	0.1	0.1	-	0.1	-
Fixed Capital	17.0	14.6	23.2	20.9	23.9
Working Capital	2.5	4.4	6.2	2.7	4.4
Gross Investment	19.5	19.0	29.4	23.6	28.3
Avg. Selling Price/Unit (Merchant)	199.00	225.00	204.00	194.00	180.00
Avg. Cost/Unit	93.00	105.00	108.00	128.00	123.00
Total Production - MM Units	108	130	133	134	152
Total Capacity - MM Units	115	130	133	134	152
Percent Utilization - %	94	100	100	100	100
Merchant Sales - MM Units	108	130	133	134	152
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	108	130	133	134	152
Market Share (MI) - %	-	-	-	-	-
U. S.					
Depreciation	0.2	0.9	0.7	0.2	0.2
Gross Property Additions	0.1	0.4	0.2	0.5	1.1
Gross Property Retirements	0.1	0.1	-	0.1	-
Fixed Capital	17.0	14.6	23.2	20.9	23.9
Working Capital	2.5	4.4	6.2	2.7	4.4
Gross Investment	19.5	19.0	29.4	23.6	28.3
Avg. Selling Price/Unit (Merchant)	199.00	225.00	204.00	194.00	180.00
Avg. Cost/Unit	93.00	105.00	108.00	128.00	123.00
Total Production - MM Units	108	130	133	134	152
Total Capacity - MM Units	115	130	133	134	152
Percent Utilization - %	94	100	100	100	100
Merchant Sales - MM Units	108	130	133	134	152
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	108	130	133	134	152
Market Share (MI) - %	-	-	-	-	-
EXPORT AND - Ex U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MI) - %	-	-	-	-	-

COMMENTS:

ANFO for the explosives market is made primarily from ammonium nitrate and fuel oil. It is one of the principal outlets for the sale of ammonium nitrate. It is sold to the coal, metal mining, quarry, and construction industries. Major industry users are midwestern coal companies, particularly in open pit mining. Monsanto has the advantage of properly located formulating plants and leadership in production of wet hole packages.

0682985

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	14.5	12.6	12.8	17.3	11.4
Gross Profit	9.9	9.0	9.5	12.2	7.4
MAT	0.2	0.1	0.1	0.1	0.1
Performance Income	9.8	9.1	9.5	12.2	7.4
Net Income	5.2	4.8	5.1	6.5	4.0
Capital Employed	2.7	2.4	3.9	7.3	6.3
% ROC	192.6	200.0	130.8	89.0	63.5
As a % of Sales:					
Gross Profit	68.3	71.4	74.2	70.5	64.9
MAT	1.4	0.8	0.8	0.1	0.1
Performance Income	67.6	72.2	74.2	70.5	64.9
Net Income	35.9	38.1	39.8	37.6	35.1
U.S.					
Sales	14.5	12.6	12.3	16.0	9.6
Gross Profit	9.9	9.0	9.2	11.4	6.3
MAT	0.2	0.1	0.1	0.1	0.1
Performance Income	9.8	9.1	9.2	11.4	6.3
Net Income	5.2	4.8	4.9	6.1	3.4
Capital Employed	2.7	2.4	3.8	7.3	6.3
% ROC	192.6	200.0	128.9	83.6	54.0
As a % of Sales:					
Gross Profit	68.3	71.4	74.8	71.3	65.6
MAT	1.4	0.8	0.8	0.1	0.1
Performance Income	67.6	72.2	74.8	71.3	65.6
Net Income	35.9	38.1	39.8	38.1	35.4
EXPORT AND Ex-U.S.A.					
Sales	-	-	0.5	1.3	1.8
Gross Profit	-	-	0.3	0.8	1.1
MAT	-	-	-	-	-
Performance Income	-	-	0.3	0.8	1.1
Net Income	-	-	0.2	0.4	0.6
Capital Employed	-	-	0.1	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	60.0	61.5	61.1
MAT	-	-	-	-	-
Performance Income	-	-	60.0	61.5	61.1
Net Income	-	-	40.0	30.8	33.3

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	THOUSANDS OF TONS				
El Dorado, Arkansas	300	300	300	300	300
Luling, Louisiana	255	255	255	255	255

0682986

NITRIC ACIDS

MAPC-28

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.6	0.4	0.3	0.6	0.6
Gross Property Additions	0.2	1.1	0.4	1.0	1.7
Gross Property Retirements	0.1	0.2	-	0.1	0.3
Fixed Capital	11.9	8.7	10.2	16.3	13.9
Working Capital	0.7	1.5	0.4	0.3	0.3
Gross Investment	12.6	10.2	10.6	16.6	14.2
Avg. Selling Price/Unit (Merchant)	128.00	165.00	148.40	174.90	152.00
Avg. Cost/Unit	35.00	45.00	43.45	54.40	49.60
Total Production - MM Units	414	469	461	463	516
Total Capacity - MM Units	555	555	555	555	555
Percent Utilization - %	75	85	83	83	93
Merchant Sales - MM Units	38	27	28	36	42
Intercompany Sales - MM Units	92	53	44	66	23
Total - MM Units	130	80	72	102	65
Market Share (Mkt) - %	-	-	-	-	-
U.S.					
Depreciation	0.6	0.4	0.3	0.6	0.6
Gross Property Additions	0.2	1.1	0.4	1.0	1.7
Gross Property Retirements	0.1	0.2	-	0.1	0.3
Fixed Capital	11.9	8.7	9.8	16.3	13.9
Working Capital	0.7	1.5	0.4	0.3	0.3
Gross Investment	12.6	10.2	10.2	16.6	14.2
Avg. Selling Price/Unit (Merchant)	128.00	165.00	149.50	174.90	152.00
Avg. Cost/Unit	35.00	45.00	43.00	54.40	49.60
Total Production - MM Units	414	469	461	463	516
Total Capacity - MM Units	555	555	555	555	555
Percent Utilization - %	75	85	83	83	93
Merchant Sales - MM Units	38	27	29	38	31
Intercompany Sales - MM Units	92	53	44	66	23
Total - MM Units	130	80	73	94	54
Market Share (Mkt) - %	-	-	-	-	-
EXPORT AND EX-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	0.4	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	0.4	-	-
Avg. Selling Price/Unit (Merchant)	-	-	157.00	163.00	164.00
Avg. Cost/Unit	-	-	54.85	63.90	64.00
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	8	11
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	8	11
Market Share (Mkt) - %	-	-	-	-	-

COMMENTS:

Nitric Acid is a commodity chemical produced primarily for upgrading by other Monsanto units. Customer sales are relatively small.

0682987

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	6.7	8.4	8.8	8.5	11.1
Gross Profit	1.7	2.5	2.0	1.5	3.0
MAT	1.1	1.3	1.9	2.1	2.5
Performance Income	0.6	1.1	0.1	(0.7)	0.4
Net Income	0.3	0.6	0.1	(0.4)	0.1
Capital Employed	0.9	1.5	5.4	5.9	6.4
% ROC	33.3	40.0	1.9	-	1.6
As a % of Sales:					
Gross Profit	25.4	29.8	22.7	17.6	27.0
MAT	16.4	15.5	21.6	24.7	22.5
Performance Income	9.0	13.1	1.1	-	3.6
Net Income	4.5	7.1	1.1	-	0.1
U.S.					
Sales	6.7	8.4	8.0	8.5	11.1
Gross Profit	1.7	2.5	2.0	1.5	3.0
MAT	1.1	1.3	1.9	2.1	2.5
Performance Income	0.6	1.1	0.1	(0.7)	0.4
Net Income	0.3	0.6	0.1	(0.4)	0.1
Capital Employed	0.9	1.5	5.4	5.9	6.4
% ROC	33.3	40.0	1.9	-	1.6
As a % of Sales:					
Gross Profit	25.4	29.8	22.7	17.6	27.0
MAT	16.4	15.5	21.6	24.7	22.5
Performance Income	9.0	13.1	1.1	-	3.6
Net Income	4.5	7.1	1.1	-	0.1
EXPORT AND Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

NOT APPLICABLE

0682988

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	0.1	0.3	0.4	0.4	0.5
Gross Property Additions	0.5	1.5	1.6	1.0	1.1
Gross Property Retirements	-	0.2	0.1	0.2	0.1
Fixed Capital	1.9	3.0	6.1	6.9	8.0
Working Capital	(0.5)	(0.8)	0.1	0.1	-
Gross Investment	1.4	2.2	6.2	7.0	8.0
Avg. Selling Price Unit (Merchant)	324.00	349.00	370.00	375.25	389.50
Avg. Cost/Unit	128.00	152.00	163.00	109.75	102.65
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	11.0	13.9	14.8	15.0	20.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	11.0	13.9	14.8	15.0	20.0
Market Share (M/I) - %	5	8	7	7	10
U.S.					
Depreciation	0.1	0.3	0.4	0.4	0.5
Gross Property Additions	0.5	1.5	1.6	1.0	1.1
Gross Property Retirements	-	0.2	0.1	0.2	0.1
Fixed Capital	1.9	3.0	6.1	6.9	8.0
Working Capital	(0.5)	(0.8)	0.1	0.1	-
Gross Investment	1.4	2.2	6.2	7.0	8.0
Avg. Selling Price Unit (Merchant)	324.00	349.00	370.00	375.25	389.50
Avg. Cost/Unit	128.00	152.00	163.00	109.75	102.65
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	11.0	13.9	14.8	15.0	20.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	11.0	13.9	14.8	15.0	20.0
Market Share (M/I) - %	5	8	7	7	10
EXPORT AND Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (M/I) - %	-	-	-	-	-

COMMENTS:

Farmers Hybrid is a wholly owned subsidiary through which Monsanto is participating in the field of animal breeding.

The primary and most advanced operation involves the sale of hybrid boars and gilts to hog producers in the midwestern United States. Growth in numbers of animals sold has been steady as new marketing concepts are being accepted. Competition consists of a number of small purebred hog producers and our market share relative to the largest of these producers exceed 10 to 1. Future competition is emerging from genetically based companies such as Dekalb and Babcock. We have targeted to achieve 20% share of the midwest Boar market and \$5 million performance income by 1982.

0682989

Minor Products/Eliminations

MAPC-1

AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	26.1	26.1	26.2
Gross Profit	1.5	3.6	4.9
MAT	8.3	11.5	12.5
Performance Income	(7.2)	(8.8)	(8.6)
Net Income	(4.1)	(5.2)	(5.1)
Capital Employed	23.7	33.4	45.5
% PROC	-	-	-
Fixed Capital	26.9	30.3	46.5
Working Capital	6.9	13.3	12.5
U.S.			
Sales	22.2	21.9	24.2
Gross Profit	1.8	2.8	4.5
MAT	6.5	9.8	11.2
Performance Income	(5.4)	(8.0)	(7.7)
Net Income	(3.3)	(4.7)	(4.5)
Capital Employed	22.7	26.6	35.9
% PROC	-	-	-
Fixed Capital	25.0	24.0	36.3
Working Capital	6.9	12.7	12.4
EXPORT AND Ex-U.S.A.			
Sales	3.9	4.2	2.0
Gross Profit	(0.3)	0.8	0.4
MAT	1.8	1.7	1.3
Performance Income	(1.8)	(0.8)	(0.9)
Net Income	(0.8)	(0.5)	(0.6)
Capital Employed	1.0	6.8	9.6
% PROC	-	-	-
Fixed Capital	1.1	6.3	10.2
Working Capital	-	0.6	0.1

Form IV

MINOR PRODUCTS INCLUDED ABOVE (PRODUCTION & CAPACITY):

THOUSANDS OF TONS	PROD'N	CAPACITY	PROD'N	CAPACITY	PROD'N	CAPACITY
CO ₂	12.0	19.5	14.4	19.5	14.5	19.5
Hydrogen	9.4	9.4	13.4	13.4	16.0	16.0

0682990

MONSANTO CHEMICAL
INTERMEDIATES CO.

0682991

ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

0682992

MONSANTO CHEMICAL INTERMEDIATES COMPANY
MAJOR PRODUCT DATA BOOK

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0682993

MONSANTO CHEMICAL INTERMEDIATES COMPANY
 AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	531.9	483.7	600.0	632.2	648.1
Gross Profit	142.6	118.1	191.5	174.9	137.6
MAT	17.9	19.7	24.6	30.1	30.6
Performance Income	127.9	96.0	165.9	134.0	113.8
Net Income	65.6	49.2	85.1	66.6	51.7
Capital Employed	285.1	335.8	488.3	610.7	681.9
% ROC	23.0	14.7	17.4	10.9	7.6
<u>U.S. and Export</u>					
Sales	466.8	438.0	547.9	582.4	579.5
Gross Profit	137.2	125.5	189.3	177.1	150.5
MAT	16.5	18.4	23.0	28.4	29.1
Performance Income	121.0	106.3	167.2	147.0	128.3
Net Income	62.1	54.3	85.6	76.2	62.0
Capital Employed	254.3	266.9	346.6	386.6	453.4
% ROC	24.4	20.3	24.7	19.7	13.7
<u>Ex-U.S.A.</u>					
Sales	65.1	45.7	52.1	49.8	68.6
Gross Profit	5.4	(7.4)	2.2	(2.2)	(12.9)
MAT	1.4	1.3	1.6	1.7	1.5
Performance Income	6.9	(10.3)	(1.3)	(13.0)	(14.5)
Net Income	3.5	(5.1)	(0.5)	(9.6)	(10.3)
Capital Employed	30.8	68.9	141.7	224.1	228.5
% ROC	11.4	-	-	-	-

0682994

MONSANTO CHEMICAL INTERMEDIATES COMPANY
WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
 (Amounts in Millions)

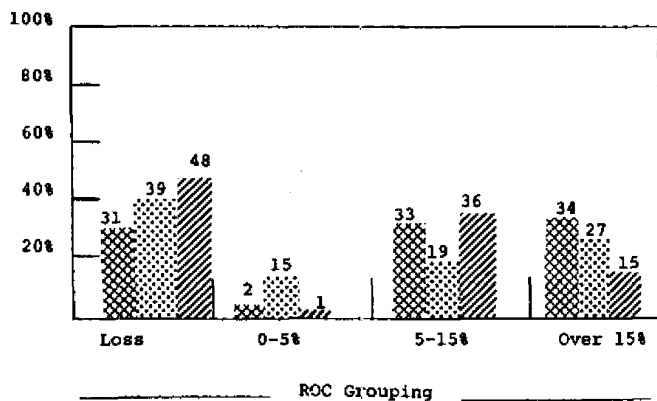
Dollar Investment

1976	\$ 153	\$ 12	\$ 159	\$ 164	\$ 488
1977	237	89	117	168	611
1978 BUDGET	326	3	248	105	682
ROC Grouping	Loss	0-5%	5-15%	Over 15%	Total

1976



1977

1978
BUDGETPercentage of
Total Investment

0682995

MONSANTO CHEMICAL INTERMEDIATES COMPANY
 WORLDWIDE PRODUCT NET CASH FLOW ANALYSIS
 (Amounts in Millions)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> Budget
<u>Total Chemical Intermediates</u>					
Net Income After Tax	\$ 65.6	\$ 49.2	\$ 85.1	\$ 66.6	\$ 51.7
Change in Capital Employed	(51.9)	(50.7)	(152.5)	(122.4)	(71.2)
Net Cash Flow	<u>\$ 13.7</u>	<u>\$ (1.5)</u>	<u>\$ (67.4)</u>	<u>\$ (55.8)</u>	<u>\$ (19.5)</u>
<u>Production and Exploration</u>					
Net Income After Tax	\$ 10.4	\$ 3.8	\$ 7.8	\$ 9.0	\$ 8.1
Change in Capital Employed	(11.1)	(19.1)	1.6	(18.2)	(29.0)
Net Cash Flow	<u>\$ (0.7)</u>	<u>\$ (15.3)</u>	<u>\$ 9.4</u>	<u>\$ (9.2)</u>	<u>\$ (20.9)</u>
<u>Petrochemicals</u>					
Net Income After Tax	\$ 29.5	\$ 28.3	\$ 50.8	\$ 34.6	\$ 17.9
Change in Capital Employed	(23.0)	1.1	(23.6)	(16.2)	(16.9)
Net Cash Flow	<u>\$ 6.5</u>	<u>\$ 29.4</u>	<u>\$ 27.2</u>	<u>\$ 18.4</u>	<u>\$ 1.0</u>
<u>Process Chemicals</u>					
Net Income After Tax	\$ 16.8	\$ 17.2	\$ 16.7	\$ 20.3	\$ 19.4
Change in Capital Employed	(8.7)	11.8	(19.9)	(10.0)	(12.1)
Net Cash Flow	<u>\$ 8.1</u>	<u>\$ 29.0</u>	<u>\$ (3.2)</u>	<u>\$ 10.3</u>	<u>\$ 7.3</u>
<u>Textile Intermediates</u>					
Net Income After Tax	\$ 8.7	\$ (.1)	\$ 9.7	\$ 2.7	\$ 6.3
Change in Capital Employed	(9.2)	(44.6)	(110.5)	(78.5)	(13.2)
Net Cash Flow	<u>\$ (.5)</u>	<u>\$ (44.7)</u>	<u>\$ (100.8)</u>	<u>\$ (75.8)</u>	<u>\$ (6.9)</u>

0682996

MONSANTO CHEMICAL INTERMEDIATES COMPANY
WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT
 (Amounts in Millions)

	1976		1977		1978	
	<u>Capital</u>	<u>ROC</u>	<u>Capital</u>	<u>ROC</u>	<u>Capital</u>	<u>ROC</u>
<u>Business Group</u>						
Production and Exploration	\$ 94.5	8.3%	\$ 112.7	8.0%	\$ 141.7	5.7%
Petrochemicals	138.8	36.6	155.0	22.3	171.9	10.4
Process Chemicals	66.8	25.0	76.8	26.4	88.9	21.8
Textile Intermediates	183.2	5.2	266.7	1.0	279.9	2.3
Other	-	-	(0.5)	-	(0.5)	-
Total	<u>\$ 488.3</u>	<u>17.4%</u>	<u>\$ 610.7</u>	<u>10.9%</u>	<u>\$ 681.9</u>	<u>7.6%</u>
<u>Major Products</u>						
Acrylonitrile	\$ 152.9	-%	236.9	-%	241.2	-%
Production and Exploration	94.5	8.3	112.7	8.0	141.7	5.7
Styrene Monomer	64.9	9.6	76.7	3.7	72.7	-
Ethylene & Co-Products	30.0	96.0	27.5	51.2	40.6	16.5
Other Nylon Intermediates	31.1	28.9	24.8	29.4	32.6	14.7
Maleic & Fumaric	18.1	19.3	18.0	16.7	17.8	7.3
Methanol	12.1	33.9	14.6	24.7	19.0	7.4
Phenol	13.3	36.8	14.4	33.3	13.0	33.1
Acetone Cyanohydrin	11.0	-	12.0	1.7	12.4	-
Acetic Acid	10.3	68.0	9.9	80.8	10.8	63.9
Sulfuric Acid	5.9	40.7	8.2	20.7	8.7	19.5
Ortho-Nitro Phenol (ONP)	8.1	17.3	6.8	35.3	5.9	45.8
Phosphorus Trichloride (PCl ₃) & Oxychloride (POCl ₃)	3.1	45.2	6.5	46.1	7.3	49.3
Adipic Acid	4.2	54.8	5.0	78.0	6.1	75.4
Nitrochlorobenzene	3.7	-	4.5	11.1	4.9	18.4
Phosphorus Pentasulfide (P ₂ S ₅)	3.3	51.5	3.8	65.8	5.4	63.0
Potassium Hydroxide (KOH)	1.7	105.9	2.4	75.0	4.2	7.1
Chlorosulfonic Acid (C/S Acid)	1.8	33.3	1.5	66.7	1.8	77.8
Muriatic Acid (HCL)	0.8	75.0	0.4	200.0	0.4	175.0
Other	<u>17.5</u>	<u>N/A</u>	<u>24.1</u>	<u>N/A</u>	<u>35.4</u>	<u>N/A</u>
Total	<u>\$ 488.3</u>	<u>17.4%</u>	<u>\$ 610.7</u>		<u>\$ 681.9</u>	<u>7.6%</u>

0682997

MCIC-5

MONSANTO CHEMICAL INTERMEDIATES COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
(Amounts in Millions)

1977
Capital
Employed

Major Product

1977
Net
Income Loss

\$236.9

ACRYLONITRILE

\$8.4

0682998

MORGANTO CHEMICAL INTERMEDIATES COMPANY
MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING - 1977
(AMOUNTS IN MILLIONS)

NET INCOME RETURN ON CAPITAL

CAPITAL EMPLOYED	LOSS	0% - 5%	5% - 15%	OVER 15%
OVER \$50	ACRYLONITRILE \$26.9 - %	STYRENE \$76.7 3.7%	PRODUCTION AND EXPLORATION \$112.7 8.0%	
\$25 - \$50				ETHYLENE & C.P. \$27.5 51.2%
\$10 - 25		ACETONE CYANOHYDRIN \$12.0 1.7%		OTHER NYLON INTERMEDIATES \$24.8 29.4%
				MALEIC & FUMARIC 18.0 16.7
				METHANOL 14.6 24.7
				PHENOL 14.4 33.3
\$5 - \$10				ALLOTIC ACID \$ 4.9 80.8%
				SULFURIC ACID 8.2 20.7
				ORTHO-NITRO-PHENOL 6.8 35.3
				PCL & POCL ₃ 6.5 46.1
				ADIPIC ACID 5.0 78.0
UNDER \$5			NITROCHLOROBENZENE \$ 4.5 11.1%	P ₂ O ₅ \$ 3.8 65.8%
				POTASSIUM HYDROXIDE 2.4 75.0
				CHLOROSULFONIC ACID 1.5 66.7
				MURIATIC ACID 0.4 200.0
				Other 24.1 15.4
TOTAL CAPITAL EMPLOYED \$610.7	\$280.9	\$88.7	\$117.2	\$167.9

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0682999

PRODUCTION AND EXPLORATION PRODUCT GROUP
 AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	52.1	59.4	68.1	81.9	89.2
Gross Profit	13.2	7.1	15.2	20.1	20.4
MAT	-	0.1	0.2	0.4	0.5
Performance Income	21.8	7.9	16.2	19.0	18.9
Net Income	10.4	3.8	7.8	9.0	8.1
Capital Employed	77.0	96.1	94.5	112.7	141.7
% ROC	13.5	4.0	8.3	8.0	5.7
As a % of Sales:					
Gross Profit	25.3	12.0	22.3	24.5	22.9
MAT	-	0.2	0.3	0.5	0.6
Performance Income	41.8	13.3	23.8	23.2	21.2
Net Income	20.0	6.4	11.5	11.0	9.1
U.S. and Export					
Sales	47.1	57.0	64.1	75.7	83.6
Gross Profit	13.1	16.6	20.3	26.0	24.9
MAT	-	0.1	0.2	0.3	0.4
Performance Income	18.1	17.6	19.9	25.3	23.7
Net Income	8.6	8.5	9.6	12.6	10.7
Capital Employed	69.0	82.1	82.2	102.5	128.4
% ROC	12.5	10.4	11.7	12.3	8.3
As a % of Sales:					
Gross Profit	27.8	29.1	31.7	34.3	29.8
MAT	-	0.2	0.3	0.4	0.5
Performance Income	38.4	30.9	31.0	33.4	28.3
Net Income	18.3	14.9	15.0	16.6	12.8
Ex-U.S.A.					
Sales	5.0	2.4	4.0	6.2	5.6
Gross Profit	0.1	(9.5)	(5.1)	(5.9)	(4.5)
MAT	-	-	-	0.1	0.1
Performance Income	3.7	(9.7)	(3.7)	(6.3)	(4.8)
Net Income	1.8	(4.7)	(1.8)	(3.6)	(2.6)
Capital Employed	8.0	14.0	12.3	10.2	13.3
% ROC	22.5	-	-	-	-
As a % of Sales:					
Gross Profit	2.0	-	-	-	-
MAT	-	-	-	1.6	1.8
Performance Income	74.0	-	-	-	-
Net Income	16.0	-	-	-	-

0683000

PRODUCTION AND EXPLORATION PRODUCT GROUP
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation (1)	9.8	10.2	14.4	17.5	15.0
Gross Property Additions	14.2	19.9	19.8	33.4	39.1
Gross Property Retirements	8.6	11.8	13.7	14.2	13.5
Fixed Capital	104.1	107.7	113.8	133.0	160.2
Working Capital	9.5	20.8	15.9	18.3	22.1
Gross Investment	113.6	128.5	129.7	151.3	182.3
U.S. & Export					
Depreciation (2)	-	-	-	13.6	13.8
Gross Property Additions	-	-	-	31.3	35.3
Gross Property Retirements	-	-	-	13.1	12.4
Fixed Capital	-	-	-	121.8	144.4
Working Capital	-	-	-	14.7	19.6
Gross Investment	96.6	109.0	114.6	136.5	164.0
Ex-U.S.A.					
Depreciation (2)	-	-	-	3.9	1.2
Gross Property Additions	-	-	-	2.1	3.8
Gross Property Retirements	-	-	-	1.1	1.1
Fixed Capital	-	-	-	11.2	15.8
Working Capital	-	-	-	3.6	2.5
Gross Investment	17.0	19.5	15.1	14.8	18.3

COMMENTS:

(1) Includes depreciation, depletion and leasehold amortization. (2) Detailed data split between U. S. and Ex-U.S.A. operations not available for prior years.

Production and Exploration performance income for 1978 Budget is expected to be at the 1977 level although there is a sales gain of \$7.3 million.

Sales are budgeted to improve \$2.1 million from volume increases and \$5.2 million from price improvement. Domestic natural gas prices have been budgeted to increase 6% in 1978 due to the increased sales of new gas. The budget anticipates a development drilling program representing capital additions of \$24.5 million. Sales of \$8.4 million are dependent upon the success of this program.

In 1977, exploration activities were conducted primarily in South Texas onshore and offshore, West Texas, New Mexico, Oklahoma, Wyoming, Canada, Java Sea and the U. K. North Sea. The 1978 Budget calls for an exploration program of \$31.3 million. This will include increased activities in each domestic area as well as the U. K. North Sea and the Java Sea. \$24.7 million of the exploration expense in 1978 will occur in the U. S. with \$6.6 million in Ex-U.S.A. areas. Significant success in one of the international areas could put the program well on the way to satisfying Long Range goals without requiring the purchase of significant reserves.

Our Long Range strategy is to target control of a minimum of 15 thousand BPD of liquid hydrocarbons providing approximately 10 thousand BPD of Monsanto's feedstock requirements. The balance of feedstock requirements will be purchased by EMM. Reserves will be added preferentially as liquids in the U. S. with second preference going to liquids in foreign areas where Monsanto can retain control of the oil produced for use in meeting our feedstock requirements.

0683001

PETROCHEMICALS BUSINESS GROUP

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	249.4	223.8	298.7	309.5	271.1
Gross Profit	67.3	62.3	104.2	82.4	43.6
MAT	7.4	7.6	9.3	10.7	10.2
Performance Income	57.1	53.2	96.1	66.1	38.3
Net Income	29.5	28.3	50.8	34.6	17.9
Capital Employed	116.3	115.2	138.8	155.0	171.9
% ROC	25.4	24.6	36.6	22.3	10.4
As a % of Sales:					
Gross Profit	27.0	27.8	34.9	26.6	16.1
MAT	3.0	3.4	3.1	3.5	3.8
Performance Income	22.9	23.8	32.2	21.4	14.1
Net Income	11.8	12.6	17.0	11.2	6.6
U.S. and Export					
Sales	230.1	215.0	288.6	298.3	261.5
Gross Profit	67.5	61.6	103.0	81.1	42.4
MAT	7.0	7.3	8.9	10.3	10.0
Performance Income	57.0	53.1	97.0	70.7	40.0
Net Income	29.4	28.2	51.3	37.5	19.2
Capital Employed	105.0	98.7	109.3	122.1	142.6
% ROC	28.0	28.6	46.9	30.7	13.5
As a % of Sales:					
Gross Profit	29.3	28.7	35.7	27.2	16.2
MAT	3.0	3.4	3.1	3.5	3.8
Performance Income	24.8	24.7	33.6	23.7	15.3
Net Income	12.8	13.1	17.8	12.6	7.3
Ex-U.S.A.					
Sales	19.3	8.0	10.1	11.2	9.6
Gross Profit	(0.2)	0.7	1.2	1.3	1.2
MAT	0.4	0.3	0.4	0.4	0.2
Performance Income	0.1	0.1	(0.9)	(4.6)	(1.7)
Net Income	0.1	0.1	(0.5)	(2.9)	(1.3)
Capital Employed	11.3	16.5	29.5	32.9	29.3
% ROC	0.1	0.1	-	-	-
As a % of Sales:					
Gross Profit	-	8.0	11.9	11.6	12.5
MAT	2.1	3.4	4.0	3.6	16.7
Performance Income	0.1	1.1	-	-	-
Net Income	0.1	1.1	-	-	-

Item 1A

0683002

PETROCHEMICALS BUSINESS GROUP
AMOUNTS IN MILLIONS

MCIC-10

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation (2)	-	-	-	15.2	17.4
Gross Property Additions (2)	-	-	-	49.0	37.5
Gross Property Retirements (2)	-	-	-	0.4	0.1
Fixed Capital	-	-	-	276.8	292.8
Working Capital	-	-	-	42.5	50.3
Gross Investment	260.0	278.3	291.9	319.3	343.1
U.S. & Export					
Depreciation (1)	-	-	-	13.9	16.2
Gross Property Additions (1)	-	-	-	48.3	37.4
Gross Property Retirements (1)	-	-	-	0.4	-
Fixed Capital	-	-	-	265.2	281.7
Working Capital	-	-	-	16.9	27.2
Gross Investment	241.6	254.6	258.8	282.1	308.9
Ex-U.S.A.					
Depreciation	-	-	-	1.3	1.2
Gross Property Additions	-	-	-	0.7	0.1
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	11.6	11.1
Working Capital	-	-	-	25.6	23.1
Gross Investment	18.4	23.7	33.1	37.2	34.2

COMMENTS:

Performance Income of \$66.1 million, \$30 million, lower than 1976, was primarily due to the E&CP Product Group and is discussed in that section.

The 1978 budget forecasts a drop to \$38.3 million, equally split between the E&CP and Monomer Product Groups. Major reasons are joint venture profit sharing in E&CP and price-cost squeezes in major Monomer Products as the result of industry over-capacity.

NOTES: The below notes should be considered when using this II-B and the Petrochemical III-B forms which follow: (1) Depreciation, Additions and Retirements of Utilities and Services at domestic plants where Petrochemicals is the Host are included in these amounts, but are not included in the following Form III-B's; (2) Total of "U.S. & Export" and "Ex-U.S.A." - See Note (1).

0683003

ETHYLENE & CO-PRODUCT GROUP
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	190.5	167.0	224.2	169.1	120.3
Gross Profit	19.8	30.0	57.7	30.8	14.9
MAT	1.7	2.2	3.6	3.6	2.6
Performance Income	16.0	27.4	53.9	26.7	13.9
Net Income	9.0	14.6	28.8	14.1	6.7
Capital Employed	33.6	23.2	30.0	27.5	40.6
% ROC	26.8	62.9	96.0	51.3	16.5
As a % of Sales:					
Gross Profit	10.4	18.0	25.7	18.2	12.3
MAT	0.9	1.3	1.6	2.1	2.2
Performance Income	8.8	16.4	24.0	15.7	11.5
Net Income	4.7	8.7	12.8	8.3	5.6
U.S. and Export					
Sales	190.5	167.0	224.2	169.1	120.3
Gross Profit	19.8	30.0	57.7	30.8	14.9
MAT	1.7	2.2	3.6	3.6	2.6
Performance Income	16.0	27.4	53.9	26.7	13.9
Net Income	9.0	14.6	28.8	14.1	6.7
Capital Employed	33.6	23.2	30.0	27.5	40.6
% ROC	26.8	62.9	96.0	51.3	16.5
As a % of Sales:					
Gross Profit	10.4	18.0	25.7	18.2	12.3
MAT	0.9	1.3	1.6	2.1	2.2
Performance Income	8.8	16.4	24.0	15.7	11.5
Net Income	4.7	8.7	12.8	8.3	5.6
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

Form 84

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:**Millions of Pounds**

	Actual		Budget
	1976	1977	1978
Chocolate Bayou and Texas City, Texas	740	730	725

0683004

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation (1)	-	-	-	1.8	2.7
Gross Property Additions (1)	-	-	-	26.3	7.6
Gross Property Retirements (1)	-	-	-	-	-
Fixed Capital	-	-	-	116.9	120.2
Working Capital	-	-	-	(14.6)	(6.1)
Gross Investment	100.1	102.5	104.0	112.1	114.1
Avg. Selling Price/Unit (Merchant) (2)	.057	.100	.118	.125	.134
Avg. Cost/Unit (2)	.061	.081	.087	.107	.121
Total Production - MM Units (2)	682	487	632	599	724 (4)
Total Capacity - MM Units (2)	740	740	740	730	725 (4)
Percent Utilization - % (2)	92	66	92	82	100
Merchant Sales - MM Units (2)	131	111	36	38	36 (4)
Intercompany Sales - MM Units (2)	589	374	597	649	601 (4)
Total - MM Units (2)	720	485	633	676	637 (4)
Market Share (MM) - % (2)	* Less Than 1%	*	*	*	*
U.S. & Export					
Depreciation (1)	-	-	-	1.8	2.7
Gross Property Additions (1)	-	-	-	26.3	7.6
Gross Property Retirements (1)	-	-	-	-	-
Fixed Capital	-	-	-	116.9	120.2
Working Capital	-	-	-	(14.6)	(6.1)
Gross Investment	100.1	102.5	104.0	102.3	114.1
Avg. Selling Price/Unit (Merchant) (2)	.057	.101	.118	.125	.134
Avg. Cost/Unit (2)	.061	.081	.087	.107	.121
Total Production - MM Units (2)	682	437	683	599	724 (4)
Total Capacity - MM Units (2)	740	740	740	730	725 (4)
Percent Utilization - % (2)	92	66	92	82	100
Merchant Sales - MM Units (2)	131	111	36	38	36 (4)
Intercompany Sales - MM Units (2)	589	374	597	649	601 (4)
Total - MM Units (2)	720	485	633	676	637 (4)
Market Share (MM) - % (2)	2.8	2.7	2.5	2.4	2.3
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

A reduced 1977 production level due to a major turnaround combined with reduced margins and the October 1, 1977 start of joint venture profit sharing with Conoco lowered Performance Income to 1975 levels. Most ethylene is used internally in a wide variety of Monsanto products, primarily for styrene and polyethylene plastic. Significant industry over-capacity will mean a continued loss of margin. The joint venture with Conoco is underway at Chocolate Bayou. Joint venture profit sharing with Conoco is further depressing Performance Income in 1978. Capacity operations are budgeted for 1978 to pay back product borrowed in 1977.

NOTES: (1) Depreciation (Straight Line), additions and retirements of utilities and services at Chocolate Bayou are not included in these amounts. (2) These statistics are for major product ethylene only. COGS units represent total average cost for major product. (3) Intercompany sales units represent SOI shipments. (4) Before impact of Conoco.

0683005

MONOMERS PRODUCT GROUP
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	179.4	151.1	209.9	204.3	191.8
Gross Profit	50.8	31.5	47.2	49.9	28.4
MAT	5.7	5.4	5.7	7.1	7.6
Performance Income	43.3	24.8	42.5	37.7	24.1
Net Income	22.5	12.7	22.2	19.6	11.1
Capital Employed	86.4	95.1	113.1	128.6	132.6
% ROC	26.0	13.4	19.6	15.2	8.4
As a % of Sales:					
Gross Profit	28.3	20.8	22.5	24.4	14.8
MAT	3.2	3.6	2.7	3.5	39.6
Performance Income	24.1	16.4	20.2	18.5	12.6
Net Income	12.5	8.4	10.6	9.6	5.8
U.S. and Export					
Sales	160.1	142.3	199.8	193.1	182.2
Gross Profit	51.0	30.8	46.0	48.6	27.2
MAT	5.3	5.1	5.3	6.7	7.4
Performance Income	43.2	24.7	43.4	42.3	25.8
Net Income	22.4	12.6	22.7	22.5	12.4
Capital Employed	75.1	78.6	83.6	95.7	103.3
% ROC	29.8	16.0	27.2	23.5	12.0
As a % of Sales:					
Gross Profit	31.9	21.6	23.0	25.2	14.9
MAT	3.3	3.6	2.7	3.5	4.1
Performance Income	27.0	17.4	21.7	21.9	14.2
Net Income	14.0	8.9	11.4	11.7	6.8
Ex-U.S.A.					
Sales	19.3	8.8	10.1	11.2	9.6
Gross Profit	(0.2)	0.7	1.2	1.3	1.2
MAT	0.4	0.3	0.4	0.4	0.2
Performance Income	0.1	0.1	(0.9)	(4.6)	(1.7)
Net Income	0.1	0.1	(0.5)	(2.9)	(1.3)
Capital Employed	11.3	16.5	29.5	32.9	29.3
% ROC	0.1	0.1	-	-	-
As a % of Sales:					
Gross Profit	-	8.0	11.9	11.6	12.5
MAT	2.1	3.4	4.0	3.6	2.1
Performance Income	0.1	1.1	-	-	-
Net Income	0.1	1.1	-	-	-

0683006

MONOMERS PRODUCT GROUP
AMOUNTS IN MILLIONS

MCIC-14

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation (2)	-	-	-	10.9	12.3
Gross Property Additions (2)	-	-	-	13.9	19.4
Gross Property Retirements (2)	-	-	-	-	0.1
Fixed Capital	-	-	-	159.9	172.6
Working Capital	-	-	-	58.2	57.7
Gross Investment	158.7	178.8	192.2	218.1	230.3
U.S. & Export					
Depreciation (1)	-	-	-	9.6	11.1
Gross Property Additions (1)	-	-	-	13.2	19.3
Gross Property Retirements (1)	-	-	-	-	-
Fixed Capital	-	-	-	148.3	161.5
Working Capital	-	-	-	32.6	34.6
Gross Investment	140.3	155.1	159.1	180.9	196.1
Ex-U.S.A.					
Depreciation	-	-	-	1.3	1.2
Gross Property Additions	-	-	-	0.7	0.1
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	11.6	11.1
Working Capital	-	-	-	25.6	23.1
Gross Investment	18.6	23.7	33.1	37.2	34.2

COMMENTS:

1977 Performance Income for U. S. and Exports approximates 1976, reflecting a significant styrene monomer decrease offset by small gains in other products. The Worldwide decrease includes start-up costs for the SM (HPP) plant. Performance Income in 1978 is budgeted to drop significantly, to 1975 levels, as general industry over-capacity prevents recovery of raw material and energy cost increases.

NOTES: The below notes should be considered when using Monomer Product Group II-B and when using all related Monomer III-B forms which follow. (1) Depreciation (Straight Line), Additions and Retirements of Utilities and Services at Texas City where Monomers is the Host are included in these amounts, but are not included in the comparable Major Product statistics appearing on the following Form III B's; (2) Total of "U.S. and Export" and "Ex-U.S.A." reported below - see note (1).

0683007

STYRENE MONOMER
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	88.2	61.4	98.1	84.2	65.2
Gross Profit	15.0	4.7	16.8	14.1	6.5
MAT	2.7	2.2	2.7	2.8	3.1
Performance Income	10.5	1.2	11.9	5.6	-
Net Income	5.5	0.6	6.2	2.8	(.5)
Capital Employed	44.7	48.4	64.9	76.7	72.7
% ROC	12.3	1.2	9.6	3.7	-
As a % of Sales:					
Gross Profit	17.0	7.7	17.1	16.7	10.0
MAT	3.1	3.6	2.8	3.3	4.7
Performance Income	11.9	2.0	12.1	6.7	-
Net Income	6.2	1.0	6.3	3.3	-
U.S. and Export					
Sales	79.2	60.9	97.9	83.8	65.2
Gross Profit	15.0	4.6	16.9	13.9	6.0
MAT	2.5	2.1	2.6	2.8	3.1
Performance Income	10.5	1.2	13.5	10.7	1.9
Net Income	5.5	0.6	7.1	5.9	.8
Capital Employed	37.8	36.4	39.1	47.4	47.4
% ROC	14.6	1.6	18.2	12.4	1.7
As a % of Sales:					
Gross Profit	18.9	7.6	17.3	16.6	9.2
MAT	3.2	3.4	2.7	3.3	4.7
Performance Income	13.3	2.0	13.8	12.8	2.9
Net Income	6.9	1.0	7.3	7.0	1.2
Ex-U.S.A.					
Sales	9.0	0.5	0.2	0.4	-
Gross Profit	-	0.1	(0.1)	0.2	0.5
MAT	0.2	0.1	0.1	-	-
Performance Income	-	-	(1.6)	(5.1)	(1.9)
Net Income	-	-	(0.9)	(3.1)	(1.3)
Capital Employed	6.9	12.0	25.8	29.3	25.3
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	20.0	-	50.0	-
MAT	2.2	20.0	50.0	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
Texas City, Texas	1500	1500	1500

0683008

		Actual				Budget
		1974	1975	1976	1977	1978
World-Wide						
	Depreciation	-	-	-	3.4	3.3
	Gross Property Additions	-	-	-	4.7	6.5
	Gross Property Retirements	-	-	-	.1	-
	Fixed Capital	-	-	-	56.3	61.3
	Working Capital	-	-	-	46.8	41.4
	Gross Investment	72.3	70.2	82.7	103.1	102.7
	Avg. Selling Price/Unit (Merchant)	(1) .184	.185	.200	.181	.172
	Avg. Cost/Unit	(1) .143	.163	.162	.135	.150
	Total Production - MM Units	(1)11123	758	1139	1240	1078
	Total Capacity - MM Units	(1)1452	1500	1500	1500	1500
	Percent Utilization - %	(1) 82	51	76	83	72
	Merchant Sales - MM Units	(1) 472	332	452	445	368
(2)	Intercompany Sales - MM Units	(1) 584	475	687	754	735
	Total - MM Units	(1)1056	807	1140	1199	1109
	Market Share (MM) - %	(1) 10.0	7.0	11.0	9.0	7.6
U.S. & Export						
	Depreciation	-	-	-	3.0	3.0
	Gross Property Additions	-	-	-	4.7	6.1
	Gross Property Retirements	-	-	-	.1	-
	Fixed Capital	-	-	-	50.1	55.5
	Working Capital	-	-	-	23.2	20.9
	Gross Investment	61.4	62.1	56.8	73.3	76.4
	Avg. Selling Price/Unit (Merchant)	(1) .181	.185	.200	.181	.172
	Avg. Cost/Unit	(1) .143	.163	.162	.135	.150
	Total Production - MM Units	(1)11153	758	1139	1240	1078
	Total Capacity - MM Units	(1)1387	1500	1500	1500	1500
	Percent Utilization - %	(1) 83	51	76	83	72
	Merchant Sales - MM Units	(1) 468	332	452	444	368
(2)	Intercompany Sales - MM Units	(1) 571	475	687	754	735
	Total - MM Units	(1)1036	807	1139	1193	1103
	Market Share (MM) - %	(1) 20.0	10.0	19.0	20.3	16.1
Excl. U.S.A.						
	Depreciation	-	-	-	.4	.3
	Gross Property Additions	-	-	-	-	.4
	Gross Property Retirements	-	-	-	-	-
	Fixed Capital	-	-	-	6.2	5.8
	Working Capital	-	-	-	23.6	20.5
	Gross Investment	10.9	16.1	25.9	29.8	26.3
	Avg. Selling Price/Unit (Merchant)	(1) .209	-	.191	-	-
	Avg. Cost/Unit	(1) .203	-	.169	-	-
	Total Production - MM Units	(1) 40	-	-	-	-
	Total Capacity - MM Units	(1) 65	-	-	-	-
	Percent Utilization - %	(1) 62	-	-	-	-
	Merchant Sales - MM Units	(1) 7	-	1	1	-
	Intercompany Sales - MM Units	(1) 13	-	-	-	-
	Total - MM Units	(1) 20	-	1	1	-
	Market Share (MM) - %	(1) 0.6	-	-	-	-

COMMENTS:

Increased merchant sales enhanced volume, but U. S. 1977 margins and performance income dropped as industry over-supply resulted in lower prices. The largest internal demand users are Lustrax and Lustran, with large volumes also moving to Resins. Merchant sales were unusually high because of industry operating problems in the second quarter. The new Australian joint venture for styrene manufacture, in start-up at year's end, significantly lowered performance income. In 1978 merchant sales volume drops as new capacity comes on stream, adding to excess capacity.

NOTES: (1) These statistics are for Major Product only. By-products are excluded. COGS units represents total average cost of Major Product. (2) Intercompany sales units represent SOI shipments.

0683009

ACETIC ACID
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Sales	27.9	30.1	41.0	42.2	46.1
Gross Profit	5.1	6.6	10.2	14.6	14.1
MAT	0.6	0.6	0.8	0.9	1.1
Performance Income	4.6	6.4	13.3	15.2	13.8
Net Income	2.4	3.4	7.0	8.0	6.9
Capital Employed	10.2	10.5	10.3	9.9	10.8
% ROC	23.5	32.4	68.0	80.8	63.9
As a % of Sales:					
Gross Profit	18.3	21.9	24.9	34.7	30.6
MAT	2.2	2.0	2.0	2.1	2.4
Performance Income	16.5	21.3	32.4	36.0	29.9
Net Income	8.6	11.3	17.1	19.0	15.0
U.S. and Export					
Sales	27.9	30.1	41.0	42.2	46.1
Gross Profit	5.1	6.6	10.2	14.6	14.1
MAT	0.6	0.6	0.8	0.9	1.1
Performance Income	4.6	6.4	13.3	15.2	13.8
Net Income	2.4	3.4	7.0	8.0	6.9
Capital Employed	10.2	10.5	10.3	9.9	10.8
% ROC	23.5	32.4	68.0	80.8	63.9
As a % of Sales:					
Gross Profit	18.3	21.9	24.9	34.7	30.6
MAT	2.2	2.0	2.0	2.1	2.4
Performance Income	16.5	21.3	32.4	36.0	29.9
Net Income	8.6	11.3	17.1	19.0	15.0
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
Texas City, Texas	400	400	400

0683010

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.3	0.3	0.3	1.0	1.0
Gross Property Additions	1.1	0.2	1.0	0.3	0.4
Gross Property Retirements	-	1.0	0.8	-	-
Fixed Capital	1.4	16.0	19.0	18.7	19.1
Working Capital	2.7	4.0	3.5	2.3	3.6
Gross Investment	4.1	20.0	20.0	21.0	22.7
Avg. Selling Price/Unit (Merchant)	(1) .095	.091	.109	.124	.130
Avg. Cost/Unit	(1) .053	.050	.079	.076	.084
Total Production - MM Units	(1) 282	340	345	361	365
Total Capacity - MM Units	(1) 400	400	400	400	400
Percent Utilization - %	(1) 70	85	86	90	91
Merchant Sales - MM Units	(1) 243	211	241	287	282
Intercompany Sales - MM Units	(1) 161	127	147	174	183
Total - MM Units	(1) 404	338	388	461	465
Market Share (IMD) - %	(1) 10.0	8.0	9.0	7.2	6.8
U.S. & Export					
Depreciation	0.3	0.3	0.3	1.0	1.0
Gross Property Additions	.1	0.9	1.0	0.3	0.4
Gross Property Retirements	-	1.0	0.8	-	-
Fixed Capital	1.4	16.0	16.0	18.7	19.1
Working Capital	1.7	4.0	3.5	2.3	3.6
Gross Investment	14.5	20.0	20.0	21.0	22.7
Avg. Selling Price/Unit (Merchant)	(1) .056	.091	.109	.124	.130
Avg. Cost/Unit	(1) .053	.050	.079	.076	.084
Total Production - MM Units	(1) 282	340	345	361	365
Total Capacity - MM Units	(1) 400	400	400	400	400
Percent Utilization - %	(1) 70	85	87	90	91
Merchant Sales - MM Units	(1) 243	211	241	287	282
Intercompany Sales - MM Units	(1) 161	127	147	174	183
Total - MM Units	(1) 404	338	388	461	465
Market Share (IMD) - %	(1) 10.0	15.0	14.0	14.4	15.3
Ex-U.S. &					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (IMD) - %	-	-	-	-	-

COMMENTS:

Acetic acid, used primarily as a raw material for Safflex, had an improved 1977 performance income, a record high of \$15.2 million. Higher selling prices with stable costs offset the volume reduction. Merchant sales were reduced to meet intercompany needs; production continued below capacity due to a raw material supply problem.

For 1978, a similar situation is expected, with margins eroding slightly. Merchant sales will be higher to meet total supply.

NOTES: (1) These statistics include Acetic Acid produced at Texas City and Birelow. Other Texas City by-products are excluded.

0683011

METHANOL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	33.6	35.5	43.7	45.9	48.2
Gross Profit	13.4	10.5	8.8	8.4	4.2
MAT	0.5	0.4	0.4	0.8	1.0
Performance Income	12.3	9.6	8.0	6.9	3.2
Net Income	6.3	4.9	4.1	3.6	1.4
Capital Employed	14.6	11.3	12.1	14.6	19.0
% ROC	43.2	43.4	33.9	24.7	7.4
As a % of Sales:					
Gross Profit	39.9	29.6	20.1	18.3	8.7
MAT	1.5	1.1	0.9	1.5	2.1
Performance Income	36.6	27.0	18.3	15.0	6.6
Net Income	18.8	13.8	9.4	7.8	2.9
U.S. and Export					
Sales	33.6	35.5	43.7	45.9	48.2
Gross Profit	13.4	10.5	8.8	8.4	4.2
MAT	0.5	0.4	0.4	0.8	1.0
Performance Income	12.3	9.6	8.0	6.9	3.2
Net Income	6.3	4.9	4.1	3.6	1.4
Capital Employed	14.6	11.3	12.1	14.6	19.0
% ROC	43.2	43.4	33.9	24.7	7.4
As a % of Sales:					
Gross Profit	39.9	29.6	20.1	18.3	8.7
MAT	1.5	1.1	0.9	1.5	2.1
Performance Income	36.6	27.0	18.3	15.0	6.6
Net Income	18.8	13.8	9.4	7.8	2.9
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
Texas City, Texas	667	667	667

0683012

		Actual				Budget
		1974	1975	1976	1977	1978
World-Wide						
Depreciation		1.5	1.5	1.5	1.7	1.7
Gross Property Additions		0.4	0.2	1.3	1.9	3.9
Gross Property Retirements		-	-	-	0.1	-
Fixed Capital		30.1	30.2	32.2	35.2	42.5
Working Capital		1.6	0.3	1.0	-	0.6
Gross Investment		31.7	30.5	33.2	35.2	43.1
Avg. Selling Price/Unit (Merchant)	(1)	.036	.036	.046	.075	.063
Avg. Cost/Unit	(1)	.023	.038	.031	.052	.061
Total Production - MM Units	(1)	641	448	535	557	533
Total Capacity - MM Units	(1)	667	667	667	667	667
Percent Utilization - %	(1)	96	67	80	84	80
Merchant Sales - MM Units	(1)	104	24	29	14	12
Intercompany Sales - MM Units	(1)	351	447	512	526	521
Total - MM Units	(1)	655	471	541	540	533
Market Share (MM) - %	(1)	4.0	4.0	3.8	3.6	3.6
U.S. & Export						
Depreciation		1.5	1.5	1.5	1.7	1.7
Gross Property Additions		0.4	0.2	1.3	1.9	3.9
Gross Property Retirements		-	-	-	0.1	-
Fixed Capital		30.1	30.2	32.2	35.2	42.5
Working Capital		1.6	0.3	1.0	-	0.6
Gross Investment		31.7	30.5	33.2	35.2	43.1
Avg. Selling Price/Unit (Merchant)	(1)	.036	.036	.066	.075	.063
Avg. Cost/Unit	(1)	.023	.038	.051	.052	.061
Total Production - MM Units	(1)	641	448	535	557	533
Total Capacity - MM Units	(1)	667	667	667	667	667
Percent Utilization - %	(1)	96	67	80	84	80
Merchant Sales - MM Units	(1)	104	24	29	14	12
Intercompany Sales - MM Units	(1)	351	447	512	526	521
Total - MM Units	(1)	655	471	541	540	533
Market Share (MM) - %	(1)	8.0	7.0	8.0	8.0	8.0
Ex-U.S.A.						
Depreciation		-	-	-	-	-
Gross Property Additions		-	-	-	-	-
Gross Property Retirements		-	-	-	-	-
Fixed Capital		-	-	-	-	-
Working Capital		-	-	-	-	-
Gross Investment		-	-	-	-	-
Avg. Selling Price/Unit (Merchant)		-	-	-	-	-
Avg. Cost/Unit		-	-	-	-	-
Total Production - MM Units		-	-	-	-	-
Total Capacity - MM Units		-	-	-	-	-
Percent Utilization - %		-	-	-	-	-
Merchant Sales - MM Units		-	-	-	-	-
Intercompany Sales - MM Units		-	-	-	-	-
Total - MM Units		-	-	-	-	-
Market Share (MM) - %		-	-	-	-	-

COMMENTS:

Methanol 1977 demand, primarily internal, remained level as above listed profit margins per lb. increased. Methanol is used primarily as a feedstock for acetic acid with significant volumes to agricultural products and synthetic fibers.

For 1978, Performance Income will decrease as prices reflect industry over-supply and costs show the effect of higher natural gas prices.

NOTES: (1) These statistics are for Major Product. By-products are excluded.

0683013

	<u>Actual</u>				<u>Budget</u>
	1974	1975	1976	1977	1978
World-Wide					
Sales	43.5	37.7	38.6	38.6	36.9
Gross Profit	17.2	10.4	10.8	11.6	5.0
MAT	1.0	1.3	1.5	2.4	2.0
Performance Income	16.5	8.9	9.1	9.1	8.8
Net Income	8.9	4.8	4.9	4.8	4.3
Capital Employed	13.9	16.6	13.3	14.4	13.0
% ROC	64.0	28.9	36.8	33.3	33.1
As a % of Sales:					
Gross Profit	39.5	27.6	28.0	30.1	13.5
MAT	2.3	3.4	3.9	6.2	5.4
Performance Income	37.9	23.6	23.6	23.6	23.8
Net Income	20.5	12.7	12.7	12.4	11.7
U.S. and Export					
Sales	33.2	29.4	28.7	27.8	27.3
Gross Profit	17.4	9.8	9.5	10.5	4.3
MAT	0.8	1.1	1.2	2.0	1.8
Performance Income	16.4	8.8	8.4	8.6	8.6
Net Income	8.8	4.7	4.5	4.6	4.3
Capital Employed	9.5	12.1	9.6	10.8	9.0
% ROC	92.6	38.8	46.9	42.6	47.8
As a % of Sales:					
Gross Profit	52.4	33.3	33.1	37.8	15.7
MAT	2.4	3.7	4.2	7.2	6.6
Performance Income	49.4	29.9	29.3	30.9	31.5
Net Income	26.5	16.0	15.7	16.6	15.7
Ex-U.S.A.					
Sales	10.3	8.3	9.9	10.8	9.6
Gross Profit	(0.2)	0.6	1.3	1.1	0.7
MAT	0.2	0.2	0.3	0.4	0.2
Performance Income	0.1	0.1	0.7	0.5	0.2
Net Income	0.1	0.1	0.4	0.2	-
Capital Employed	4.4	4.5	3.7	3.6	4.0
% ROC	2.3	2.2	10.8	5.6	-
As a % of Sales:					
Gross Profit	-	7.2	13.1	10.2	7.3
MAT	1.9	2.4	3.0	3.7	2.1
Performance Income	1.0	1.2	7.1	4.6	2.1
Net Income	1.0	1.2	4.0	1.9	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	<u>Millions of Pounds</u>		
	<u>Actual</u>	<u>Budget</u>	
	1976	1977	1978
Chocolate Bayou, Texas	500	500	500
West Footscray, Australia	36	33	33

0683014

		Actual				Budget
		1974	1975	1976	1977	1978
World-Wide						
	Depreciation	-	-	-	2.4	2.2
	Gross Property Additions	-	-	-	1.3	2.2
	Gross Property Retirements	-	-	-	-	-
	Fixed Capital	-	-	-	31.5	33.2
	Working Capital	-	-	-	7.2	5.6
	Gross Investment	32.7	41.2	40.7	40.7	38.6
	Avg. Selling Price/Unit (Merchant)	(1)	.201	.263	.230	.208
	Avg. Cost/Unit	(1)	.131	.143	.142	.149
	Total Production - MM Units	(1)	433	299	373	424
	Total Capacity - MM Units	(1)	486	486	536	533
	Percent Utilization - %	(1)	89	62	70	80
	Merchant Sales - MM Units	(1)	181	158	207	207
(2)	Intercompany Sales - MM Units	(1)	221	153	160	207
	Total - MM Units	(1)	402	311	367	414
	Market Share (MM) - %	(1)	7.3	7.0	7.0	7.0
U.S. & Export						
	Depreciation	-	-	-	1.4	1.4
	Gross Property Additions	-	-	-	.9	2.1
	Gross Property Retirements	-	-	-	-	-
	Fixed Capital	-	-	-	28.1	27.9
	Working Capital	-	-	-	5.2	3.0
	Gross Investment	25.2	33.6	33.5	33.3	30.9
	Avg. Selling Price/Unit (Merchant)	(1)	.217	.262	.227	.201
	Avg. Cost/Unit	(1)	.120	.132	.137	.137
	Total Production - MM Units	(1)	405	277	351	398
	Total Capacity - MM Units	(1)	450	450	500	500
	Percent Utilization - %	(1)	90	62	70	80
	Merchant Sales - MM Units	(1)	156	149	200	192
(2)	Intercompany Sales - MM Units	(1)	208	142	145	195
	Total - MM Units	(1)	374	291	345	387
	Market Share (MM) - %	(1)	16.1	16.0	16.0	17.1
Ex-U.S.A.						
	Depreciation	-	-	-	1.0	.8
	Gross Property Additions	-	-	-	.4	.1
	Gross Property Retirements	-	-	-	-	-
	Fixed Capital	-	-	-	5.4	5.3
	Working Capital	-	-	-	2.0	2.6
	Gross Investment	7.5	7.6	7.2	7.4	7.9
	Avg. Selling Price/Unit (Merchant)	(1)	.252	.300	.309	.280
	Avg. Cost/Unit	(1)	.234	.270	.282	.239
	Total Production - MM Units	(1)	28	22	22	26
	Total Capacity - MM Units	(1)	36	36	36	33
	Percent Utilization - %	(1)	78	61	61	79
	Merchant Sales - MM Units	(1)	15	9	7	13
	Intercompany Sales - MM Units	(1)	13	11	15	12
	Total - MM Units	(1)	28	20	22	27
	Market Share (MM) - %	(1)	4	4	4	8

COMMENTS:

* Less than 1%

Worldwide sales and Performance Income in 1977 matched 1976 levels. HPSK Resins is the largest phenol consumer with a variety of other Monsanto low volume uses. In 1978, sales volume drops significantly as Shell's new plant supplies their internal needs. Prices continue under pressure with industry utilization below 70%.

NOTES: (1) These statistics are for major product only. By-products are excluded. COGS units represent total average cost of major products. (2) Intercompany sales units represent SOI shipments.

0683015

ACETONE CYANOHYDRIN
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	-	-	10.6	16.0	18.1
Gross Profit	(0.1)	(1.1)	0.4	1.1	(1.4)
MAT	0.1	0.1	0.3	0.2	0.3
Performance Income	(0.2)	(1.2)	-	0.6	(2.0)
Net Income	(0.1)	(0.7)	-	0.2	(1.1)
Capital Employed	0.3	4.8	11.0	12.0	12.4
% ROC	-	-	-	1.7	-
As a % of Sales:					
Gross Profit	-	-	3.8	6.9	-
MAT	-	-	2.8	1.3	1.7
Performance Income	-	-	-	3.8	-
Net Income	-	-	-	1.3	-
U.S. and Export					
Sales	-	-	10.6	16.0	18.1
Gross Profit	(0.1)	(1.1)	0.4	1.1	(1.4)
MAT	0.1	0.1	0.3	0.2	0.3
Performance Income	(0.2)	(1.2)	-	0.6	(2.0)
Net Income	(0.1)	(0.7)	-	0.2	(1.1)
Capital Employed	0.3	4.8	11.0	12.0	12.4
% ROC	-	-	-	1.7	-
As a % of Sales:					
Gross Profit	-	-	3.8	6.9	-
MAT	-	-	2.8	1.3	1.7
Performance Income	-	-	-	3.8	-
Net Income	-	-	-	1.3	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
Texas City, Texas	150	300	300

0683016

		Actual				Budget
		1974	1975	1976	1977	1978
World-Wide						
Depreciation	-	-	-	0.3	.6	.6
Gross Property Additions	-	-	0.3	3.5	-	.1
Gross Property Retirements	-	-	-	-	-	-
Fixed Capital	0.3	4.8	11.5	15.1	15.2	15.2
Working Capital	-	-	0.1	1.3	1.3	2.3
Gross Investment	0.3	4.9	13.4	16.4	17.5	17.5
Avg. Selling Price/Unit (Merchant)	(1)	-	-	.104	.096	.090
Avg. Cost/Unit	(1)	-	-	.102	.081	.097
Total Production - MM Units	(1)	-	-	61	143	200
Total Capacity - MM Units	(1)	-	-	150	200	300
Percent Utilization - %	(1)	-	-	41	48	67
Merchant Sales - MM Units	(1)	-	-	56	140	200
Intercompany Sales - MM Units	(1)	-	-	-	-	-
Total - MM Units	(1)	-	-	56	140	200
Market Share (MM) - %	(1)	-	-	4.0	9.0	11.0
U.S. & Export						
Depreciation	-	-	-	0.3	.6	.6
Gross Property Additions	-	-	0.3	3.5	-	.1
Gross Property Retirements	-	-	-	-	-	-
Fixed Capital	0.3	4.8	11.5	15.1	15.2	15.2
Working Capital	-	-	0.1	1.3	1.3	2.3
Gross Investment	0.3	4.9	13.4	16.4	17.5	17.5
Avg. Selling Price/Unit (Merchant)	(1)	-	-	.104	.096	.090
Avg. Cost/Unit	(1)	-	-	.102	.081	.097
Total Production - MM Units	(1)	-	-	61	143	200
Total Capacity - MM Units	(1)	-	-	150	200	300
Percent Utilization - %	(1)	-	-	41	48	67
Merchant Sales - MM Units	(1)	-	-	56	140	200
Intercompany Sales - MM Units	(1)	-	-	-	-	-
Total - MM Units	(1)	-	-	56	140	200
Market Share (MM) - %	(1)	-	-	3.0	15.0	20.0
Ex-U.S.A.						
Depreciation	-	-	-	-	-	-
Gross Property Additions	-	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-	-
Fixed Capital	-	-	-	-	-	-
Working Capital	-	-	-	-	-	-
Gross Investment	-	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-	-
Total - MM Units	-	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-	-

COMMENTS:

The ACY unit uses by-product HCN from the Texas City Acrylonitrile Plant which reflects a profit far exceeding the ACY losses.

NOTES: (1) The statistics are for major product only. By-products are excluded.

0683017

	1976	1977	1978
	Products	Products	BUDGET
World-Wide			
Sales	(22.1)	(22.6)	(22.7)
Gross Profit	0.2	0.1	-
MAT	-	-	0.1
Operating Income	0.2	0.1	(0.1)
Performance Income	0.2	0.3	0.3
Capital Employed	1.5	1.0	4.7
% PROC	13.3	30.0	6.4
Fixed Capital	1.2	1.1	1.3
Working Capital	1.0	.6	4.2
U.S. & Export			
Sales	(22.1)	(22.6)	(22.7)
Gross Profit	0.2	0.1	-
MAT	-	-	0.1
Operating Income	0.2	0.1	(0.1)
Performance Income	0.2	0.3	0.3
Capital Employed	1.5	1.0	4.7
% PROC	13.3	30.0	6.4
Fixed Capital	1.2	1.1	1.3
Working Capital	1.0	.6	4.2
Ex-U.S.A.			
Sales	-	-	-
Gross Profit	-	-	-
MAT	-	-	-
Operating Income	-	-	-
Performance Income	-	-	-
Capital Employed	-	-	-
% PROC	-	-	-
Fixed Capital	-	-	-
Working Capital	-	-	-

Form IV

COMMENTS: This group represents intra-product groups sales eliminations and sales of vinyl acetate and vinyl chloride monomer.

0683018

PROCESS CHEMICALS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	142.1	137.0	162.9	173.6	185.0
Gross Profit	39.9	40.4	41.9	48.7	50.5
MAT	5.5	5.5	7.7	7.7	8.2
Performance Income	32.5	33.4	32.4	39.4	40.0
Net Income	16.8	17.2	16.7	20.3	19.4
Capital Employed	58.7	46.9	66.8	76.8	88.9
% ROC	28.6	36.7	25.0	26.4	21.8
As a % of Sales:					
Gross Profit	28.1	29.5	25.7	28.1	27.3
MAT	3.9	4.0	4.7	4.4	4.4
Performance Income	22.9	24.4	19.9	22.7	21.6
Net Income	11.8	12.6	10.3	11.7	10.5
U.S. and Export					
Sales	129.5	126.5	153.0	162.5	173.1
Gross Profit	36.9	39.3	41.2	46.8	48.6
MAT	4.8	4.9	7.0	7.3	7.8
Performance Income	30.5	33.1	32.6	38.1	38.7
Net Income	15.8	17.1	16.8	19.7	18.9
Capital Employed	50.1	41.0	60.3	70.0	82.4
% ROC	31.5	41.7	27.9	28.1	22.9
As a % of Sales:					
Gross Profit	28.5	31.1	26.9	28.8	28.0
MAT	3.7	3.9	4.6	4.4	4.5
Performance Income	23.6	26.2	21.3	23.4	22.3
Net Income	12.2	13.5	11.0	12.1	10.9
Ex-U.S.A.					
Sales	12.6	10.5	9.9	11.1	11.9
Gross Profit	3.0	1.1	0.7	1.9	1.9
MAT	0.7	0.6	0.7	0.4	0.4
Performance Income	2.0	0.3	(0.2)	1.3	1.3
Net Income	1.0	0.1	(0.1)	0.6	0.5
Capital Employed	8.6	5.9	6.5	6.8	6.5
% ROC	11.6	1.7	-	8.8	7.7
As a % of Sales:					
Gross Profit	23.8	10.5	7.1	17.1	15.9
MAT	5.6	5.7	7.1	3.6	0.3
Performance Income	15.9	2.9	-	11.7	10.9
Net Income	7.9	1.0	-	5.4	4.2

Form 1A

0683019

PROCESS CHEMICALS
AMOUNTS IN MILLIONS

MCIC-28

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	6.2	8.2
Gross Property Additions	-	-	-	7.4	39.1
Gross Property Retirements	-	-	-	0.8	1.8
Fixed Capital	-	-	-	139.1	159.2
Working Capital	-	-	-	23.2	20.3
Gross Investment	122.5	114.4	143.9	162.3	179.5
U.S. & Export					
Depreciation	-	-	-	5.5	7.2
Gross Property Additions	-	-	-	7.1	38.5
Gross Property Retirements	-	-	-	0.8	1.8
Fixed Capital	-	-	-	124.5	143.3
Working Capital	-	-	-	20.0	17.3
Gross Investment	104.5	98.3	127.5	144.5	160.6
Ex-U.S.A.					
Depreciation	-	-	-	0.7	1.0
Gross Property Additions	-	-	-	0.3	0.6
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	14.6	15.9
Working Capital	-	-	-	3.2	3.0
Gross Investment	18.0	16.1	16.4	17.8	18.9

COMMENTS:

Process Chemicals are intermediates used in downstream Monsanto products and by the chemical process industry.

The primary purpose of this business group is to reliably and competitively supply Monsanto's internal requirements for Process Chemical intermediates (chlorobenzenes, phosphorus trichloride and oxychloride, sulfuric and chlorosulfonic acid, and potassium hydroxide) from a position of optimum strength in technology, raw materials, manufacturing cost and capital efficiency. Approximately 35% of the total production flows to internal users and 65% to our merchant customers. Merchant sales of these intermediates will be pursued to achieve the lowest manufacturing cost and to maximize corporate profitability. Our strategic approach includes the following:

- (1) Technical programs which emphasize cost reduction, energy efficiency, and environmental improvements.
- (2) Maintain or improve our market share.
- (3) Expanding when required to meet the total internal and merchant market demand.
- (4) Expanding into other world areas to support internal requirements or the merchant market.

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	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	4.4	3.3	2.9	3.4	4.4
Gross Profit	1.9	1.4	0.1	1.3	2.2
MAT	0.2	0.3	0.1	0.1	0.1
Performance Income	1.5	1.0	-	1.1	2.0
Net Income	0.7	0.5	-	0.5	0.9
Capital Employed	2.7	4.7	3.7	4.5	4.9
% ROC	25.9	10.6	-	11.1	18.4
As a % of Sales:					
Gross Profit	43.2	42.4	3.4	38.2	50.0
MAT	4.5	9.1	3.4	2.9	2.3
Performance Income	34.1	30.3	-	32.4	45.4
Net Income	15.9	15.2	-	14.7	20.5
U.S. and Export					
Sales	4.4	3.3	2.9	3.4	4.4
Gross Profit	1.9	1.4	0.1	1.3	2.2
MAT	0.2	0.3	0.1	0.1	0.1
Performance Income	1.5	1.0	-	1.1	2.0
Net Income	0.7	0.5	-	0.5	0.9
Capital Employed	2.7	4.7	3.7	4.5	4.9
% ROC	25.9	10.6	-	11.1	18.4
As a % of Sales:					
Gross Profit	43.2	42.4	3.4	38.2	50.0
MAT	4.5	9.1	3.4	2.9	2.3
Performance Income	34.1	30.3	-	32.4	45.4
Net Income	15.9	15.2	-	14.7	20.5
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
W. G. Krumrich	90	137	127
J. F. Quenry	40	-	-

0683021

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	0.9	0.9
Gross Property Additions	-	-	-	0.1	2.7
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	6.7	6.9
Working Capital	-	-	-	1.1	0.8
Gross Investment	5.1	5.3	14.2	7.8	7.7
Avg. Selling Price/Unit (Merchant)	.263	.384	.240	.400	.421
Avg. Cost/Unit	.165	.199	.212	.243	.225
Total Production - MM Units	102	89	94	97	110
Total Capacity - MM Units	130	130	130	137	127
Percent Utilization - %	78	68	72	71	87
Merchant Sales - MM Units	17	9	7	8	10
(1) Intercompany Sales - MM Units	85	80	87	89	101
Total - MM Units	102	89	94	97	111
Market Share (MM) - %	30	30	25	30	30
U.S. & Export					
Depreciation	-	-	-	0.9	0.9
Gross Property Additions	-	-	-	0.1	2.7
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	6.7	6.9
Working Capital	-	-	-	1.1	0.8
Gross Investment	5.1	5.3	14.2	7.8	7.7
Avg. Selling Price/Unit (Merchant)	.263	.384	.240	.400	.421
Avg. Cost/Unit	.165	.199	.212	.243	.225
Total Production - MM Units	102	89	94	97	110
Total Capacity - MM Units	130	130	130	137	127
Percent Utilization - %	78	68	72	71	87
Merchant Sales - MM Units	17	9	7	8	10
(1) Intercompany Sales - MM Units	85	80	87	89	101
Total - MM Units	102	89	94	97	111
Market Share (MM) - %	65	65	65	65	65
Ex U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS: (1) Intercompany sales units represent SOX shipments. Process Chemical's objective in the CL family of products is to aggressively pursue the merchant market to protect this important product franchise and to provide internal Monsanto with a low-cost, reliable supply of paratrichlorobenzene (PTCB). The two primary isomers, para and ortho, of PTCB are produced simultaneously during manufacture. Total utilization of both isomers is required to achieve the lowest possible cost. The para isomer flows primarily to Monsanto's internal requirements while the ortho isomer flows to the marketplace. The internal product integration and the market diversity provide the real strength of this franchise.

U. S. NITROCHLOROBENZENE - 1978 (millions of pounds)

	Capacity	Production	Internal Use	Market Share	Relative Market Share
Monsanto	127	110	99.5	10.5	1.05 X Du Pont
Du Pont	125	55	45.0	10.0	0.95 X OC
Imports				77.5	0.67 X "

Monsanto's PCB production of 110 million pounds/year is the largest in the world and growing at 3 1/2-4% per year. The large volume, our integrated raw material position, and superior technology which provides lower flexibility gives us the lowest cost in the industry, worldwide. We will maintain our superior technical position by expanding our isomer flexibility, improving our crystallization technology and by debottlenecking the existing plant in the early 1980's. Although we have historically been only a domestic producer and supplier of nitrochlorobenzene and derivatives, we believe our technical superiority and cost position provide us an opportunity to expand into other world areas. We are now evaluating manufacture of PCB and derivatives in Europe to support internal requirements and the merchant market.

0683022

ORTHO-NITRO PHENOL (ONP)
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	6.6	9.7	11.8	13.9	15.1
Gross Profit	1.9	2.6	3.4	5.2	6.0
MAT	0.1	0.1	0.5	0.5	0.2
Performance Income	1.4	2.2	2.8	4.6	5.5
Net Income	0.7	1.1	1.4	2.4	2.7
Capital Employed	5.4	7.1	8.1	6.8	5.9
% ROC	13.0	15.5	17.3	35.3	45.8
As a % of Sales:					
Gross Profit	28.8	26.8	28.8	37.4	39.7
MAT	1.5	1.0	4.2	3.6	1.3
Performance Income	21.2	22.7	23.7	33.1	36.4
Net Income	10.6	11.3	11.9	17.3	17.9
U.S. and Export					
Sales	6.6	9.7	11.8	13.9	15.1
Gross Profit	1.9	2.6	3.4	5.2	6.0
MAT	0.1	0.1	0.5	0.5	0.2
Performance Income	1.4	2.2	2.8	4.6	5.5
Net Income	0.7	1.1	1.4	2.4	2.7
Capital Employed	5.4	7.1	8.1	6.8	5.9
% ROC	13.0	15.5	17.3	35.3	45.8
As a % of Sales:					
Gross Profit	28.8	26.8	28.8	37.4	39.7
MAT	1.5	1.0	4.2	3.6	1.3
Performance Income	21.2	22.7	23.7	33.1	36.4
Net Income	10.6	11.3	11.9	17.3	17.9
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
W. G. Krummrich	21	23	23

0683023

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.1	0.1	0.3	0.3
Gross Property Additions	-	-	-	-	0.1
Gross Property Retirements	-	-	-	-	-
Fixed Capital	7.3	10.2	11.8	8.8	7.8
Working Capital	2.2	2.7	3.0	2.7	1.8
Gross Investment	9.5	12.9	14.8	11.5	9.6
Avg. Selling Price/Unit (Merchant)	.384	.413	.485	.627	.658
Avg. Cost/Unit	.279	.349	.345	.391	.396
Total Production - MM Units	17	23	25	22	23
Total Capacity - MM Units	20	20	21	23	23
Percent Utilization - %	85	115	119	96	100
Merchant Sales - MM Units	17	23	24	22	23
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	17	23	24	22	23
Market Share (MM) - %	100.0	100.0	85.0	85.0	85.0
U.S. & Export					
Depreciation	0.2	0.1	0.1	0.3	0.3
Gross Property Additions	-	0.3	-	-	0.1
Gross Property Retirements	-	-	-	-	-
Fixed Capital	7.3	10.2	11.8	8.8	7.8
Working Capital	2.2	2.7	3.0	2.7	1.8
Gross Investment	9.5	12.9	14.8	11.5	9.6
Avg. Selling Price/Unit (Merchant)	.384	.413	.485	.627	.658
Avg. Cost/Unit	.279	.349	.345	.391	.396
Total Production - MM Units	17	23	25	22	23
Total Capacity - MM Units	20	20	21	23	23
Percent Utilization - %	85	115	119	96	100
Merchant Sales - MM Units	17	23	24	22	23
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	17	23	24	22	23
Market Share (MM) - %	100.0	100.0	85.0	85.0	85.0
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Our position as the U.S. ONP producer for FMC's FURADAN allows us to optimize the benefits of our isoxar control technology. As FMC's needs increase, we should participate in that growth either by supplying the ONCB if FMC elects to build their own ONP plant with technology previously licensed from Monsanto, or, if FMC does not build an ONP plant, by supplying FMC with ONP.

0683024

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	37.3	30.5	35.5	36.2	35.0
Gross Profit	6.5	7.2	9.3	7.9	5.8
MAT	2.1	1.6	1.8	2.0	2.5
Performance Income	3.5	5.3	6.8	5.4	2.7
Net Income	1.8	2.7	3.5	3.0	1.3
Capital Employed	19.2	16.8	18.1	18.0	17.8
% ROC	9.4	16.1	19.3	16.7	7.3
As a % of Sales:					
Gross Profit	17.4	23.6	26.2	21.8	16.2
MAT	5.6	5.2	5.1	5.5	7.0
Performance Income	9.4	17.4	19.2	14.9	7.5
Net Income	4.8	8.9	9.9	8.3	3.6
U.S. and Export					
Sales	26.5	23.0	25.6	25.1	25.0
Gross Profit	4.9	6.7	8.2	5.9	4.2
MAT	1.8	1.4	1.5	1.7	2.2
Performance Income	2.2	5.0	6.2	4.0	1.6
Net Income	1.1	2.6	3.2	2.0	0.8
Capital Employed	10.9	10.7	11.7	11.2	11.7
% ROC	10.1	24.3	27.4	17.9	6.8
As a % of Sales:					
Gross Profit	18.5	29.1	32.0	23.5	16.8
MAT	6.8	6.1	5.9	6.8	8.8
Performance Income	8.3	21.7	24.2	15.9	6.4
Net Income	4.2	11.3	12.5	8.0	3.2
Ex-U.S.A.					
Sales	10.8	7.5	9.9	11.1	10.8
Gross Profit	1.6	0.5	1.1	2.0	1.6
MAT	0.3	0.2	0.3	0.3	0.3
Performance Income	1.3	0.3	0.6	1.4	1.1
Net Income	0.7	0.1	0.3	0.8	0.5
Capital Employed	8.3	6.1	6.4	6.8	6.1
% ROC	8.4	1.6	4.7	11.8	8.2
As a % of Sales:					
Gross Profit	14.8	6.7	11.1	18.0	14.8
MAT	2.8	2.7	3.0	2.7	2.8
Performance Income	12.0	4.0	6.1	12.6	10.2
Net Income	6.3	1.3	3.0	7.2	4.6

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
J. F. Queney	106	106	106
La Salle	9	9	9
Newport	51	53	53

0683025

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	1.9	1.7	1.5	1.7	2.6
Gross Property Additions	0.6	0.7	0.5	0.5	8.2
Gross Property Retirements	0.3	-	0.5	0.1	0.2
Fixed Capital	34.6	30.2	36.7	40.4	43.9
Working Capital	6.3	4.7	5.3	6.4	5.4
Gross Investment	40.9	34.9	42.5	46.8	49.3
Avg. Selling Price/Unit (Merchant)	1.308	1.309	1.311	1.293	1.278
Avg. Cost/Unit	1.251	1.240	1.229	1.229	1.238
Total Production - MM Units	146	104	136	134	146
Total Capacity - MM Units	167	165	166	168	168
Percent Utilization - %	87	63	82	80	87
Merchant Sales - MM Units	109	87	108	105	114
Intercompany Sales - MM Units	54	17	28	12	12
Total - MM Units	163	104	136	117	126
Market Share (MM) - %	15-17	15-17	15-17	20	20
U.S. & Export					
Depreciation	1.3	1.2	1.0	1.0	1.6
Gross Property Additions	0.6	0.5	0.5	0.2	7.6
Gross Property Retirements	0.3	-	0.2	0.1	0.2
Fixed Capital	21.0	22.5	22.8	25.8	28.4
Working Capital	2.4	2.0	3.6	3.2	2.6
Gross Investment	23.9	24.5	26.4	29.0	31.6
Avg. Selling Price/Unit (Merchant)	1.290	1.320	1.319	1.303	1.280
Avg. Cost/Unit	1.235	1.231	1.213	1.227	1.240
Total Production - MM Units	107	81	101	95	107
Total Capacity - MM Units	106	106	106	106	106
Percent Utilization - %	100	76	95	90	100
Merchant Sales - MM Units	74	61	73	66	74
Intercompany Sales - MM Units	54	17	28	12	12
Total - MM Units	128	78	99	78	86
Market Share (MM) - %	33	35	35	30	30
Ex-U.S.A.					
Depreciation	0.6	0.5	0.5	0.7	1.0
Gross Property Additions	-	-	-	0.3	0.6
Gross Property Retirements	-	-	0.3	-	-
Fixed Capital	13.6	13.7	13.9	14.6	15.5
Working Capital	3.4	1.7	2.3	3.2	2.8
Gross Investment	17.0	15.4	16.2	17.8	18.3
Avg. Selling Price/Unit (Merchant)	1.305	1.184	1.268	1.284	1.274
Avg. Cost/Unit	1.260	1.165	1.236	1.233	1.233
Total Production - MM Units	39	23	39	39	39
Total Capacity - MM Units	61	59	60	62	62
Percent Utilization - %	64	39	65	63	63
Merchant Sales - MM Units	35	26	37	39	40
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	35	26	37	39	40
Market Share (MM) - %	80-90	80-90	80-90	90-95	90-95

0683026

COMMENTS:

Strategy for maleic anhydride is to build upon a leading position by taking full advantage of our own butene technology. Successful implementation strategy will result in: (1) the capture of at least 35% U.S. production share and 45% market share by 1985; (2) the opportunity to invest in other world areas; (3) profitability sufficient to justify continued investment in new facilities; (4) movement to improving its relative cost position.

Our action plan, consistent with the recently completed R&D study, is to: (1) build the next U.S. plant with start-up in 1982; (2) convert the J. F. Queney plant to butene feedstock in 1983; however, effort to achieve an earlier conversion is continuing; (3) maximize profitability from current Ex-U.S.A. facilities; (4) continue cost reduction and technical programs to insure progression down the conversion cost and raw material yield experience curves; (5) have the best new plant technology available as needed.

Maleic anhydride is used primarily in unsaturated polyester resins, agricultural chemicals, oil additives and food acidulants. Monomer has concentrated our marketing effort in the least cyclical markets (oil additives, ag chemicals, and fumaric/maleic acids) and will continue to do so in the future. We will, however, increase our participation (17%-22%) in the high growth (10%/year), cyclical, unsaturated polyester resins market while maintaining our position (40%) in the slower growing (4-5%/year) more stable markets.

	Transfer Price/Cost & Capital					See-Through	
	Actual				Budget 1978	Actual 1977	Budget 1978
	1974	1975	1976	1977			
World-Wide							
Sales	8.3	12.0	13.9	16.5	20.1	16.5	20.1
Gross Profit	2.7	5.0	4.0	5.2	7.2	7.5	8.5
MAT	0.1	0.1	0.7	0.3	0.3	0.5	0.3
Performance Income	2.6	4.9	3.2	4.7	6.7	6.9	8.0
Net Income	1.3	2.5	1.7	2.5	3.4	3.8	3.8
Capital Employed	1.6	2.4	3.3	3.8	5.4	5.0	6.7
% ROC	81.2	104.2	51.5	65.8	63.0	76.0	56.7
As a % of Sales:							
Gross Profit	32.5	41.7	28.8	31.5	35.8	45.5	42.3
MAT	1.2	0.8	5.0	1.8	1.5	3.0	1.5
Performance Income	31.3	40.8	23.0	28.5	33.3	41.8	39.8
Net Income	15.7	20.8	12.2	15.2	16.9	23.0	18.9
U.S. and Export							
Sales	8.3	12.0	13.9	16.5	20.1	16.5	20.1
Gross Profit	2.7	5.0	4.4	5.2	7.2	7.5	8.5
MAT	0.1	0.1	0.3	0.3	0.3	0.5	0.3
Performance Income	2.6	4.9	4.0	4.7	6.7	6.9	8.0
Net Income	1.3	2.5	2.1	2.5	3.4	3.8	3.8
Capital Employed	1.6	2.4	3.2	3.8	5.4	5.0	6.7
% ROC	81.2	104.2	65.6	65.8	63.0	76.0	56.7
As a % of Sales:							
Gross Profit	32.5	41.7	31.7	31.5	35.8	45.5	42.3
MAT	1.2	0.8	2.2	1.8	1.5	3.0	1.5
Performance Income	31.3	40.8	28.8	28.5	33.3	41.8	39.8
Net Income	15.7	20.8	15.1	15.2	16.9	23.0	18.9
Ex-U.S.A.							
Sales	-	-	-	-	-	-	-
Gross Profit	-	-	(0.4)	-	-	-	-
MAT	-	-	0.4	-	-	-	-
Performance Income	-	-	(0.8)	-	-	-	-
Net Income	-	-	(0.4)	-	-	-	-
Capital Employed	-	-	0.1	-	-	-	-
% ROC	-	-	-	-	-	-	-
As a % of Sales:							
Gross Profit	-	-	-	-	-	-	-
MAT	-	-	-	-	-	-	-
Performance Income	-	-	-	-	-	-	-
Net Income	-	-	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual 1976	Actual 1977	Budget 1978
W. G. Krummrich	60	60	60
Amniston	-	-	20

COMMENTS:

The phosphorus intermediate product group will be managed to maximize the profitability from Monsanto's basic phosphorus position and to provide the internal users with a reliable, low cost source of phosphorus pentasulfide (P₂S₅), phosphorus trichloride (PCl₃) and phosphorus oxychloride (POCl₃). Approximately 10% of Monsanto's phosphorus is used in the production of these intermediates. Usage will increase about 6% per year during the period of the LRP. Monsanto is the largest P₂S₅ producer in the world and has a 1.3 relative capacity share versus Stauffer. We have successfully built upon our phosphorus manufacturing and technical capabilities to achieve a 1.4 U. S. relative market share versus Hooker and a 1.8 relative production share versus Stauffer.

(Continued on Form III-B-1)

0683027

	Triester Price/Cost & Capital				See-Phru		
	Actual				Actual	Budget	1978
	1974	1975	1976	1977			
World-Wide							
Depreciation	0.1	0.1	0.1	0.2	-	-	-
Gross Property Additions	0.1	0.5	0.7	0.1	2.4	-	-
Gross Property Retirements	-	0.1	0.6	-	-	-	-
Fixed Capital	2.7	3.2	3.4	4.9	7.1	-	-
Working Capital	0.8	1.2	1.9	1.0	1.0	-	-
Gross Investment	3.5	4.4	5.3	5.9	8.1	8.3	10.7
Avg. Selling Price/Unit (Merchant)	.179	.295	.324	.338	.358	-	-
Avg. Cost/Unit	.120	.173	.218	.236	.230	.183	.208
Total Production - MM Units	48	41	45	47	56	-	-
Total Capacity - MM Units	60	60	60	60	80	-	-
Percent Utilization - %	80	68	74	78	70	-	-
Merchant Sales - MM Units	46	41	43	49	56	-	-
Intercompany Sales - MM Units	1	-	-	-	-	-	-
Total - MM Units	47	41	43	49	56	-	-
Market Share (MM) - %	21-24	21-24	21-24	20-25	20-25	-	-
U.S. & Export							
Depreciation	0.1	0.1	0.1	0.2	6.2	-	-
Gross Property Additions	0.1	0.5	0.1	0.1	2.4	-	-
Gross Property Retirements	-	0.1	-	-	-	-	-
Fixed Capital	2.7	3.2	3.2	4.9	7.1	-	-
Working Capital	0.8	1.2	1.9	1.0	1.0	-	-
Gross Investment	3.5	4.4	5.1	5.9	8.1	8.3	10.7
Avg. Selling Price/Unit (Merchant)	.179	.295	.324	.338	.358	-	-
Avg. Cost/Unit	.120	.173	.218	.236	.230	.183	.208
Total Production - MM Units	48	41	45	47	56	-	-
Total Capacity - MM Units	60	60	60	60	80	-	-
Percent Utilization - %	80	68	74	78	70	-	-
Merchant Sales - MM Units	46	41	43	49	56	-	-
Intercompany Sales - MM Units	1	-	-	-	-	-	-
Total - MM Units	47	41	43	49	56	-	-
Market Share (MM) - %	40	40	50	40-45	40-45	-	-
Ex-U.S.A.							
Depreciation	-	-	-	-	-	-	-
Gross Property Additions	-	-	0.6	-	-	-	-
Gross Property Retirements	-	-	0.6	-	-	-	-
Fixed Capital	-	-	0.2	-	-	-	-
Working Capital	-	-	-	-	-	-	-
Gross Investment	-	-	0.2	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-	-	-
Total - MM Units	-	-	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-	-	-

COMMENTS: (Continued) From Form 157-A-1

The U.S. demand will reach 163 million pounds in 1978 with 49% used for oil additives, 47% for production of organophosphorus insecticides, 2% for one formulation and 2% being exported. The industry has grown about 4-5% per year during the past decade and is forecasted to continue at the same rate. We expect to increase our U.S. market share from 40 to 48% by 1982. Monsanto has a strong position in the U.S. market and participates in selected world markets with exports when the market risks and financial rewards are acceptable. Local manufacture will be considered in selected world areas based upon our U.S. phosphorus position when the financial rewards justify the risks. We anticipate that other phosphorus producers may enter this market as the demand for elemental phosphorus for the detergent markets continues to decline.

0683028

MCIC-37 PHOSPHORUS TRICHLORIDE (PCl₃) AND
PHOSPHORUS OXYCHLORIDE (POCl₃)
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital					See-Through	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977	1978	1977	1978
World-Wide							
Sales	8.6	11.1	12.9	15.6	18.8	15.6	18.6
Gross Profit	1.9	3.7	3.3	6.1	7.7	7.8	8.6
MAT	0.2	0.1	0.5	0.3	0.3	0.5	0.3
Performance Income	1.7	3.6	2.6	5.7	7.2	7.3	8.1
Net Income	0.9	1.9	1.4	3.0	3.6	4.0	4.3
Capital Employed	0.6	1.8	3.1	6.5	7.3	7.4	8.2
% ROC	150.0	105.6	45.2	46.1	49.3	54.1	52.4
As a % of Sales:							
Gross Profit	22.1	33.3	25.6	39.1	41.0	50.0	45.7
MAT	2.3	0.9	3.9	1.9	1.6	3.2	1.6
Performance Income	19.8	32.4	20.2	36.5	3.8	46.8	43.1
Net Income	10.5	17.1	10.9	19.2	19.1	25.6	22.9
U.S. and Export							
Sales	8.6	11.1	12.9	15.6	18.8	15.6	18.6
Gross Profit	1.9	3.7	3.3	6.1	7.7	7.8	8.6
MAT	0.2	0.1	0.5	0.3	0.3	0.5	0.3
Performance Income	1.7	3.6	2.6	5.7	7.2	7.3	8.1
Net Income	0.9	1.9	1.4	3.0	3.6	4.0	4.3
Capital Employed	0.6	1.8	3.1	6.5	7.3	7.4	8.2
% ROC	150.0	105.6	45.2	46.1	49.3	54.1	52.4
As a % of Sales:							
Gross Profit	22.1	33.3	25.6	39.1	41.0	50.0	45.7
MAT	2.3	0.9	3.9	1.9	1.6	3.2	1.6
Performance Income	19.8	32.4	20.2	36.5	3.8	46.8	43.1
Net Income	10.5	17.1	10.9	19.2	19.1	25.6	22.9
Ex-U.S.A.							
Sales	-	-	-	-	-	-	-
Gross Profit	-	-	-	-	-	-	-
MAT	-	-	-	-	-	-	-
Performance Income	-	-	-	-	-	-	-
Net Income	-	-	-	-	-	-	-
Capital Employed	-	-	-	-	-	-	-
% ROC	-	-	-	-	-	-	-
As a % of Sales:							
Gross Profit	-	-	-	-	-	-	-
MAT	-	-	-	-	-	-	-
Performance Income	-	-	-	-	-	-	-
Net Income	-	-	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
W. G. Krummrich	96	141	141

0683029

PHOSPHORUS TRICHLORIDE (PCl₃) AND
PHOSPHORUS OXYCHLORIDE (POCl₃)
AMOUNTS IN MILLIONS

MCIC-38

	Yearly Price/Cost & Capital					See-Through	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977	1978	1977	1978
World Wide							
Depreciation	0.2	0.2	0.1	0.4	0.5	-	-
Gross Property Additions	0.3	0.4	1.5	3.1	1.6	-	-
Gross Property Retirements	0.1	0.1	-	0.3	-	-	-
Fixed Capital	1.2	3.1	5.9	9.8	9.2	-	-
Working Capital	0.3	0.9	1.5	1.1	1.0	-	-
Gross Investment	1.5	4.0	7.4	10.9	10.2	12.6	12.1
Avg. Selling Price/Unit (Merchant)	.182	.309	.344	.333	.360	-	-
Avg. Cost/Unit	.125	.156	.206	.206	.218	.109	.201
Total Production - MM Units	74	71	61	63	65	-	-
Total Capacity - MM Units	99	99	96	141	141	-	-
Percent Utilization - %	75	72	64	45	46	-	-
Merchant Sales - MM Units	12	14	13	10	10	-	-
Intercompany Sales - MM Units	62	56	48	36	41	-	-
Total - MM Units	74	70	61	46	51	-	-
Market Share (MM) - %	N/A	N/A	N/A	N/A	N/A	-	-
U.S. & Export							
Depreciation	0.2	0.2	0.1	0.4	0.5	-	-
Gross Property Additions	0.3	0.4	1.5	3.1	1.6	-	-
Gross Property Retirements	0.1	0.1	-	0.3	-	-	-
Fixed Capital	1.2	3.1	5.9	9.8	9.2	-	-
Working Capital	0.3	0.9	1.5	1.1	1.0	-	-
Gross Investment	1.5	4.0	7.4	10.9	10.2	12.6	12.1
Avg. Selling Price/Unit (Merchant)	.182	.309	.344	.333	.360	-	-
Avg. Cost/Unit	.125	.156	.206	.206	.218	.109	.201
Total Production - MM Units	74	71	61	63	65	-	-
Total Capacity - MM Units	99	99	96	141	141	-	-
Percent Utilization - %	75	72	64	45	46	-	-
Merchant Sales - MM Units	12	14	13	10	10	-	-
Intercompany Sales - MM Units	62	56	48	36	41	-	-
Total - MM Units	74	70	61	46	51	-	-
Market Share (MM) - %	35-40	35-40	35-40	25	25	-	-
Ex-U.S.A.							
Depreciation	-	-	-	-	-	-	-
Gross Property Additions	-	-	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-	-	-
Fixed Capital	-	-	-	-	-	-	-
Working Capital	-	-	-	-	-	-	-
Gross Investment	-	-	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-	-	-
Total - MM Units	-	-	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-	-	-

COMMENTS:

In 1978, 80% of our PCl₃ and 99% of our POCl₃ production will be used internally with the balance sold in the merchant market. These products are used for insecticides, phosphite stabilizers for rubber and plastics, and a variety of pharmaceutical, pesticide and dye intermediate chemicals.

The industry growth rate is projected at 5-6% per year. Our growth rate will be slightly higher at 7-8% because of our use of PCl₃ in ROUNDER.
Also, refer to Phosphorous Pentasulfide Commentary.

0683030

SULFURIC ACID
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	14.0	13.0	14.6	15.0	15.8
Gross Profit	5.4	4.6	5.0	3.9	4.4
MAT	0.2	0.2	0.5	0.5	0.7
Performance Income	5.2	4.3	4.5	3.4	3.6
Net Income	2.6	2.2	2.4	1.7	1.7
Capital Employed	4.4	4.7	5.9	8.2	8.7
% ROC	59.1	46.8	40.7	20.7	19.5
As a % of Sales:					
Gross Profit	38.6	35.4	34.2	26.0	27.8
MAT	1.4	1.5	3.4	3.3	4.4
Performance Income	37.1	33.1	30.8	22.7	22.8
Net Income	18.6	16.9	16.4	11.3	10.8
U.S. and Export					
Sales	14.0	13.0	14.6	15.0	15.8
Gross Profit	5.4	4.6	5.0	3.9	4.4
MAT	0.2	0.2	0.5	0.5	0.7
Performance Income	5.2	4.3	4.5	3.4	3.6
Net Income	2.6	2.2	2.4	1.7	1.7
Capital Employed	4.4	4.7	5.9	8.2	8.7
% ROC	59.1	46.8	40.7	20.7	19.5
As a % of Sales:					
Gross Profit	38.6	35.4	34.2	26.0	27.8
MAT	1.4	1.5	3.4	3.3	4.4
Performance Income	37.1	33.1	30.8	22.7	22.8
Net Income	18.6	16.9	16.4	11.3	10.8
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
W. G. Krumrich	420	420	420
Everett	208	208	208
Avon	280	280	280
El Dorado	229	229	229

0683031

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.5	0.5	0.6	0.9	1.1
Gross Property Additions	1.7	-	1.0	0.6	1.5
Gross Property Retirements	0.2	0.1	0.2	0.1	0.2
Fixed Capital	12.2	12.6	13.4	16.6	19.9
Working Capital	1.3	1.1	1.7	2.2	1.7
Gross Investment	13.5	13.7	15.1	18.8	21.6
Avg. Selling Price/Unit (Merchant)	.014	.018	.018	.019	.021
Avg. Cost/Unit	.009	.012	.012	.014	.015
Total Production - MM Units	1049	785	868	898	925
Total Capacity - MM Units	1132	1137	1137	1137	1137
Percent Utilization - %	93	69	76	79	81
Merchant Sales - MM Units	936	635	720	694	643
Intercompany Sales - MM Units	113	150	148	83	104
Total - MM Units	1049	785	868	777	747
Market Share (MM) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	0.5	0.5	0.6	0.9	1.1
Gross Property Additions	1.7	-	1.0	0.6	1.5
Gross Property Retirements	0.2	0.1	0.2	0.1	0.2
Fixed Capital	12.2	12.6	13.4	16.6	19.9
Working Capital	1.3	1.1	1.7	2.2	1.7
Gross Investment	13.5	13.7	15.1	18.8	21.6
Avg. Selling Price/Unit (Merchant)	.014	.018	.018	.019	.021
Avg. Cost/Unit	.009	.012	.012	.014	.015
Total Production - MM Units	1049	785	868	898	925
Total Capacity - MM Units	1132	1137	1137	1137	1137
Percent Utilization - %	93	69	76	79	81
Merchant Sales - MM Units	936	635	720	694	643
Intercompany Sales - MM Units	113	150	148	83	104
Total - MM Units	1049	785	868	777	747
Market Share (MM) - %	*	*	*	*	*
	(* Less than 1%)				
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The W. G. Krumrich unit is strategically important since it supplies the SO₃ gas to the chlorosulfonic acid unit. The El Dorado and Everett units supply the merchant market. These three units are sulfur burning units and subject to competition from recovered by-product acid. The Everett unit has been under increased economic pressure from the influx of unit trains of smelter acid from Canada but should continue to be viable for the near future (through 1982) and improve thereafter as the smelter acid finds market utilization.

The Avon sludge burning sulfuric acid unit is a joint venture with TOSCO and needs a major rehabilitation to extend its useful life another 15 years and to bring it into compliance with the Federal (i.e., SO₂) regulations for new plants. Sulfuric acid may provide growth opportunities for Monsanto. Studies are underway to identify potential opportunities with companies which have H₂S or SO₂ where we can capitalize on our technology by building new plants and developing additional markets.

0683032

POTASSIUM HYDROXIDE (KOH)
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.9	13.8	10.5	10.6	11.3
Gross Profit	2.6	6.2	3.8	3.7	0.9
MAT	0.1	0.2	0.2	0.2	0.3
Performance Income	2.5	6.0	3.4	3.4	0.6
Net Income	1.3	3.1	1.8	1.8	0.3
Capital Employed	1.7	1.9	1.7	2.4	4.2
% ROC	76.5	163.2	105.9	75.0	7.1
As a % of Sales:					
Gross Profit	29.2	44.9	36.2	34.9	8.0
MAT	1.1	1.4	1.9	1.9	2.7
Performance Income	28.1	43.5	32.4	32.1	5.3
Net Income	14.6	22.5	17.1	17.0	2.7
U.S. and Export					
Sales	8.9	13.8	10.5	10.6	11.3
Gross Profit	2.6	6.2	3.8	3.7	0.9
MAT	0.1	0.2	0.2	0.2	0.3
Performance Income	2.5	6.0	3.4	3.4	0.6
Net Income	1.3	3.1	1.8	1.8	0.3
Capital Employed	1.7	1.9	1.7	2.4	4.2
% ROC	76.5	163.2	105.9	75.0	7.1
As a % of Sales:					
Gross Profit	29.2	44.9	36.2	34.9	8.0
MAT	1.1	1.4	1.9	1.9	2.7
Performance Income	28.1	43.5	32.4	32.1	5.3
Net Income	14.6	22.5	17.1	17.0	2.7
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
W. G. Krummrich	82	63	63

0683033

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.2	0.1	0.1	0.2
Gross Property Additions	0.2	0.1	0.7	0.6	2.1
Gross Property Retirements	-	0.1	-	0.1	0.1
Fixed Capital	4.1	4.5	3.8	5.5	7.6
Working Capital	0.6	0.7	0.6	0.5	-
Gross Investment	4.9	5.2	4.4	6.0	7.6
Avg. Selling Price/Unit (Merchant)	.105	.161	.159	.129	.165
Avg. Cost/Unit	.070	.090	.103	.120	.152
Total Production - MM Units	74	73	61	58	68
Total Capacity - MM Units	67	84	82	63	63
Percent Utilization - %	110	87	74	92	108
Merchant Sales - MM Units	59	51	35	34	43
Intercompany Sales - MM Units	31	31	30	29	25
Total - MM Units	90	82	65	63	68
Market Share (MM) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	0.2	0.2	0.1	0.1	0.2
Gross Property Additions	0.2	0.1	0.7	0.6	2.1
Gross Property Retirements	-	0.1	-	0.1	0.1
Fixed Capital	4.1	4.5	3.8	5.5	7.6
Working Capital	0.6	0.7	0.6	0.5	-
Gross Investment	4.9	5.2	4.4	6.0	7.6
Avg. Selling Price/Unit (Merchant)	.105	.161	.159	.129	.165
Avg. Cost/Unit	.070	.090	.103	.120	.152
Total Production - MM Units	74	73	61	58	68
Total Capacity - MM Units	67	84	82	63	63
Percent Utilization - %	110	87	74	92	108
Merchant Sales - MM Units	59	51	35	34	43
Intercompany Sales - MM Units	31	31	30	29	25
Total - MM Units	90	82	65	63	68
Market Share (MM) - %	25	25	25	20	20
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The M. G. Knausrich plant's mercury based chlor-alkali unit is currently being rehabilitated to provide an additional ten years of operation. The LRP assumes that operation of this unit will be environmentally acceptable over this ten year period. This unit supplies hydrogen to our rubber chemical manufacturing units, potassium hydroxide (KOH) for the manufacture of MEPP and about 25-30% of our internal chlorine and 10% of our internal caustic requirements. Seventy percent of the KOH produced is sold in the U. S. market where Rossmore continues to enjoy a 20% M/I position.

0683034

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	2.5	2.9	3.5	4.7	5.9
Gross Profit	0.9	1.2	1.2	2.1	3.1
MAT	-	-	0.1	0.2	0.3
Performance Income	0.9	1.2	1.1	1.9	2.8
Net Income	0.5	0.6	0.6	1.0	1.4
Capital Employed	0.7	0.7	1.8	1.5	1.8
% ROC	71.4	85.7	33.3	66.7	77.8
As a % of Sales:					
Gross Profit	36.0	41.4	34.3	44.7	52.5
MAT	-	-	2.9	4.3	5.1
Performance Income	36.0	41.4	31.4	40.4	47.5
Net Income	20.0	20.7	17.1	21.3	23.7
U.S. and Export					
Sales	2.5	2.9	3.5	4.7	5.9
Gross Profit	0.9	1.2	1.2	2.1	3.1
MAT	-	-	0.1	0.2	0.3
Performance Income	0.9	1.2	1.1	1.9	2.8
Net Income	0.5	0.6	0.6	1.0	1.4
Capital Employed	0.7	0.7	1.8	1.5	1.8
% ROC	71.4	85.7	33.3	66.7	77.8
As a % of Sales:					
Gross Profit	36.0	41.4	34.3	44.7	52.5
MAT	-	-	2.9	4.3	5.1
Performance Income	36.0	41.4	31.4	40.4	47.5
Net Income	20.0	20.7	17.1	21.3	23.7
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual		Budget
	1976	1977	1978
W. G. Krummrich	80	80	80

0683035

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.1	0.1	0.1	0.2	0.3
Gross Property Additions	0.1	0.1	0.1	0.1	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	2.1	2.1	3.2	3.1	3.4
Working Capital	0.3	0.3	0.4	0.2	0.1
Gross Investment	2.4	2.4	3.6	3.3	3.5
Avg. Selling Price/Unit (Merchant)	.049	.070	.074	.091	.095
Avg. Cost/Unit	.023	.034	.037	.051	.046
Total Production - MM Units	68	45	56	52	60
Total Capacity - MM Units	80	80	80	80	80
Percent Utilization - %	85	51	70	65	75
Merchant Sales - MM Units	32	26	30	30	36
Intercompany Sales - MM Units	37	24	27	22	24
Total - MM Units	69	50	57	52	60
Market Share (MM) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	0.1	0.1	0.1	0.2	0.3
Gross Property Additions	0.1	0.1	0.1	0.1	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	2.1	2.1	3.2	3.1	3.4
Working Capital	0.3	0.3	0.4	0.2	0.1
Gross Investment	2.4	2.4	3.6	3.3	3.5
Avg. Selling Price/Unit (Merchant)	.049	.070	.074	.091	.095
Avg. Cost/Unit	.023	.034	.037	.051	.046
Total Production - MM Units	68	45	56	52	60
Total Capacity - MM Units	80	80	80	80	80
Percent Utilization - %	85	51	70	65	75
Merchant Sales - MM Units	32	26	30	30	36
Intercompany Sales - MM Units	37	24	27	22	24
Total - MM Units	69	50	57	52	60
Market Share (MM) - %	25	25	25	33	33
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Monsanto and Du Pont are the only two chlorosulfonic acid producers in the U. S. market. Monsanto currently markets 30-40 million pounds and uses an additional 20-25 million pounds internally to produce the TFCI line of plasticizers. Our goal is to increase our market share to 50% from the present 33% position. Monsanto's plant uses SO₂ gas from the sulfuric acid unit and by-product HCl gas from our monochlorobenzene unit which gives us a cost advantage over Du Pont's units which use more expensive anhydrous HCl. Effort is underway to improve our production reliability and quality to support our effort in expanding our market share.

0683036

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	2.7	2.4	3.0	2.8	2.6
Gross Profit	0.8	0.6	1.3	1.6	1.4
MAT	-	0.1	0.1	0.1	0.1
Performance Income	0.8	0.5	1.2	1.5	1.3
Net Income	0.4	0.2	0.6	0.8	0.7
Capital Employed	0.4	0.5	0.8	0.4	0.4
% ROC	100.0	40.0	75.0	200.0	175.0
As a % of Sales:					
Gross Profit	29.6	25.0	43.3	57.1	53.8
MAT	-	4.2	3.3	3.6	3.8
Performance Income	29.6	20.8	40.0	53.6	50.0
Net Income	14.8	8.3	20.0	28.6	15.4
U.S. and Export					
Sales	2.7	2.4	3.0	2.8	2.6
Gross Profit	0.8	0.6	1.3	1.6	1.4
MAT	-	0.1	0.1	0.1	0.1
Performance Income	0.8	0.5	1.2	1.5	1.3
Net Income	0.4	0.2	0.6	0.8	0.7
Capital Employed	0.4	0.5	0.8	0.4	0.4
% ROC	100.0	40.0	75.0	200.0	175.0
As a % of Sales:					
Gross Profit	29.6	25.0	43.3	57.1	53.8
MAT	-	4.2	3.3	3.6	3.8
Performance Income	29.6	20.8	40.0	53.6	50.0
Net Income	14.8	8.3	20.0	28.6	15.4
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
W. G. Krummrich	42	42	42
Everett	13	13	13
J. F. Queney	4	4	4

0683037

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.1	0.1	0.1	0.1	0.1
Gross Property Additions	0.1	0.4	0.1	0.1	0.1
Gross Property Retirements	0.1	-	-	0.1	-
Fixed Capital	0.0	1.2	1.8	1.4	1.6
Working Capital	0.2	0.2	0.2	0.1	0.1
Gross Investment	1.2	1.4	2.0	1.5	1.7
Avg. Selling Price/Unit (Merchant)	.043	.046	.049	.079	.089
Avg. Cost/Unit	.028	.035	.025	.038	.042
Total Production - MM Units	34	44	44	34	31
Total Capacity - MM Units	39	59	59	59	59
Percent Utilization - %	87	75	74	58	53
Merchant Sales - MM Units	53	52	36	30	24
Intercompany Sales - MM Units	6	6	5	4	5
Total - MM Units	59	58	41	34	29
Market Share (MM) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	0.1	0.1	0.1	0.1	0.1
Gross Property Additions	0.1	0.4	0.1	0.1	0.1
Gross Property Retirements	0.1	-	-	0.1	-
Fixed Capital	1.0	1.2	1.8	1.4	1.6
Working Capital	0.2	0.2	0.2	0.1	0.1
Gross Investment	1.2	1.4	2.0	1.5	1.7
Avg. Selling Price/Unit (Merchant)	.043	.046	.049	.079	.089
Avg. Cost/Unit	.028	.035	.025	.038	.042
Total Production - MM Units	34	44	44	34	31
Total Capacity - MM Units	39	59	59	59	59
Percent Utilization - %	87	75	74	58	53
Merchant Sales - MM Units	53	52	36	30	24
Intercompany Sales - MM Units	6	6	5	4	5
Total - MM Units	59	58	41	34	29
Market Share (MM) - %	2	2	2	2	2
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Muriatic acid is recovered as a by-product from a number of Monsanto processes. Our goal is to market all the muriatic acid produced or alternately use the HCl gas to maximize recovery of chlorine value. Because of hydrocarbon contamination we are redirecting our marketing effort to the non-food markets. We do not expect any difficulty marketing the quantity of acid.

0683038

	1976	1977	1978
	Products	Products	BUDGET
World-Wide			
Sales	54.3	54.9	55.2
Gross Profit	10.5	11.7	11.8
MAT	3.2	3.5	3.4
Operating Income	7.3	8.2	8.4
Performance Income	3.3	7.7	7.6
Capital Employed	20.3	24.7	32.5
% PROC	16.3	33.2	25.8
Fixed Capital	-	41.9	51.8
Working Capital	-	7.9	8.4
U.S. & Export			
Sales	54.3	54.9	54.1
Gross Profit	10.5	11.8	11.5
MAT	3.2	3.4	3.3
Operating Income	7.3	8.4	8.2
Performance Income	3.3	7.8	7.4
Capital Employed	20.3	24.7	32.1
% PROC	16.3	33.2	25.5
Fixed Capital	-	41.2	51.4
Working Capital	-	7.9	6.2
Ex-U.S.A.			
Sales	-	-	1.1
Gross Profit	-	(0.1)	0.3
MAT	-	0.1	0.1
Operating Income	-	(0.2)	0.2
Performance Income	-	(0.1)	0.2
Capital Employed	-	-	0.4
% PROC	-	-	50.0
Fixed Capital	-	-	0.4
Working Capital	-	-	0.2

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COMMENTS:

Minor products covered by above include MCB (SOI), PMA, ONA, Chlorine, Santosite, TSA, Cyclohexanol and all resales products.

0683039

TEXTILE INTERMEDIATES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	89.7	64.4	71.4	107.3	142.6
Gross Profit	22.3	8.3	30.0	23.7	23.1
MAT	5.0	6.6	7.4	11.3	11.7
Performance Income	16.6	1.5	21.0	9.5	16.6
Net Income	8.7	(0.1)	9.7	2.7	6.3
Capital Employed	33.1	77.7	188.2	266.7	279.9
% ROC	26.3	-	5.2	1.0	2.3
As a % of Sales:					
Gross Profit	24.9	12.9	42.0	22.1	16.2
MAT	5.6	10.2	10.4	10.5	8.2
Performance Income	18.5	2.3	29.4	8.9	11.6
Net Income	9.7	-	13.6	2.5	4.4
U.S. and Export					
Sales	61.5	40.4	43.3	86.0	101.1
Gross Profit	19.8	8.0	24.6	23.2	34.6
MAT	4.7	6.2	6.9	10.5	10.9
Performance Income	15.5	2.5	17.5	12.9	25.9
Net Income	8.1	0.5	7.8	6.4	13.2
Capital Employed	30.2	45.2	94.8	92.5	100.5
% ROC	26.8	1.1	8.2	6.9	13.1
As a % of Sales:					
Gross Profit	32.2	19.9	56.8	27.0	34.2
MAT	7.6	15.4	15.9	12.2	10.8
Performance Income	25.2	6.2	40.4	15.0	25.6
Net Income	13.2	1.2	18.0	7.4	13.1
Ex-U.S.A.					
Sales	28.2	24.0	28.1	21.3	41.5
Gross Profit	2.5	0.3	5.4	0.5	(11.5)
MAT	0.3	0.4	0.5	0.8	0.8
Performance Income	1.1	(1.0)	3.5	(3.4)	(9.3)
Net Income	0.6	(0.6)	1.9	(3.7)	(6.9)
Capital Employed	2.9	32.5	93.4	174.2	179.4
% ROC	20.7	-	2.0	-	-
As a % of Sales:					
Gross Profit	8.9	12.5	19.2	2.3	-
MAT	1.1	16.7	1.8	3.8	1.9
Performance Income	3.9	-	12.5	-	-
Net Income	2.1	-	6.8	-	-

0683040

TEXTILE INTERMEDIATES BUSINESS GROUP MCIC-50
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	22.8	30.3
Gross Property Additions	-	-	-	120.2	71.1
Gross Property Retirements	-	-	-	0.3	0.1
Fixed Capital	-	-	-	294.1	334.9
Working Capital	-	-	-	34.6	29.4
Gross Investment	72.8	117.3	238.8	328.7	364.3
U.S. & Export					
Depreciation	-	-	-	22.1	22.3
Gross Property Additions	-	-	-	36.8	34.2
Gross Property Retirements	-	-	-	0.1	0.1
Fixed Capital	-	-	-	123.5	156.2
Working Capital	-	-	-	26.9	16.1
Gross Investment	67.9	81.4	142.1	150.4	172.3
Ex-U.S.A.					
Depreciation	-	-	-	0.7	8.0
Gross Property Additions	-	-	-	83.4	36.9
Gross Property Retirements	-	-	-	0.2	-
Fixed Capital	-	-	-	170.6	178.7
Working Capital	-	-	-	7.7	13.3
Gross Investment	4.9	35.9	96.7	178.3	192.0

COMMENTS:

Products included are Acrylonitrile, Nylon Salt, Adipic Acid, Hexamethylenediamine and by-products. Textile Intermediates' primary products, Acrylonitrile and Nylon Salt, are designated SOI products, consequently most sales revenue and related costs are associated with intermediate and by-product sales.

Major customers include MTC, MIC, MPR, Chevron, Vistron and Rohm & Haas.

0683041

ADIPIC ACID
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	29.8	31.5	20.3	17.5	23.7
Gross Profit	7.8	6.2	6.7	8.6	10.7
MAT	1.2	1.9	1.4	1.7	2.1
Performance Income	5.9	3.2	4.3	7.0	8.7
Net Income	3.2	1.7	2.3	3.9	4.6
Capital Employed	3.6	5.6	4.2	5.0	6.1
% ROC	88.9	30.4	54.8	78.0	75.4
As a % of Sales:					
Gross Profit	26.2	19.7	33.0	49.1	45.1
MAT	4.0	6.0	6.9	9.7	8.9
Performance Income	19.8	10.2	21.2	40.0	36.7
Net Income	10.7	5.4	11.3	22.3	19.4
U.S. and Export					
Sales	29.8	31.5	20.3	17.5	23.7
Gross Profit	7.8	6.2	6.7	8.6	10.7
MAT	1.2	1.9	1.4	1.7	2.1
Performance Income	5.9	3.2	4.3	7.0	8.7
Net Income	3.2	1.7	2.3	3.9	4.6
Capital Employed	3.6	5.6	4.2	5.0	6.1
% ROC	88.9	30.4	54.8	78.0	75.4
As a % of Sales:					
Gross Profit	26.2	19.7	33.0	49.1	45.1
MAT	4.0	6.0	6.9	9.7	8.9
Performance Income	19.8	10.2	21.2	40.0	36.7
Net Income	10.7	5.4	11.3	22.3	19.4
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

Form 10A

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1976	1978
Pensacola	640	640	635

0683042

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	1.4	1.8
Gross Property Additions	-	-	-	7.9	10.1
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	13.9	15.1
Working Capital	-	-	-	8.1	0.1
Gross Investment	10.2	11.6	7.2	14.0	15.2
Avg. Selling Price/Unit (Merchant)	.300	.312	.324	.369	.366
Avg. Cost/Unit	.222	.250	.217	.169	.202
Total Production - MM Units	630	459	549	602	635
Total Capacity - MM Units	700	700	640	640	635
Percent Utilization - %	90	66	86	94	100
Merchant Sales - MM Units	27	47	23	38	52
Intercompany Sales - MM Units	72	54	40	21	21
Total - MM Units	99	101	63	59	73
Market Share (Mtl) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	-	-	-	1.4	1.8
Gross Property Additions	-	-	-	7.9	10.1
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	13.9	15.1
Working Capital	-	-	-	8.1	0.1
Gross Investment	10.2	11.6	7.2	14.0	15.2
Avg. Selling Price/Unit (Merchant)	.300	.312	.324	.369	.366
Avg. Cost/Unit	.222	.250	.217	.169	.202
Total Production - MM Units	630	459	549	602	635
Total Capacity - MM Units	700	700	640	640	635
Percent Utilization - %	90	66	86	94	100
Merchant Sales - MM Units	27	47	23	38	52
Intercompany Sales - MM Units	72	54	40	21	21
Total - MM Units	99	101	63	59	73
Market Share (Mtl) - %	N/A	N/A	N/A	N/A	N/A
Ex-J.R.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mtl) - %	-	-	-	-	-

COMMENTS:

Adipic Acid, a nylon intermediate, is also used in the manufacture of plasticizers, food acidulants, urethanes and synthetic lubricants. The total market is expected to grow modestly at 4% per year. Major customers are HIC, Rohm & Haas and Witco.

0683043

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	33.5	27.8	33.4	56.4	79.0
Gross Profit	1.7	(0.9)	5.1	(4.1)	(2.7)
MAT	3.0	4.5	5.4	6.0	5.8
Performance Income	(1.4)	(5.7)	(0.5)	(11.3)	(1.4)
Net Income	(0.8)	(3.8)	(1.6)	(8.4)	(3.1)
Capital Employed	6.9	52.7	152.9	236.9	241.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	5.1	-	15.3	-	-
MAT	9.0	16.2	16.2	10.6	7.3
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	5.3	3.8	5.3	35.1	37.5
Gross Profit	(0.8)	(1.2)	(0.2)	(3.7)	8.9
MAT	2.7	4.1	4.9	5.4	5.3
Performance Income	(2.5)	(4.8)	(4.6)	(9.3)	5.6
Net Income	(1.4)	(3.2)	(3.8)	(5.6)	2.5
Capital Employed	4.0	24.0	71.0	65.7	66.5
% ROC	-	-	-	-	3.8
As a % of Sales:					
Gross Profit	-	-	-	-	23.7
MAT	50.9	107.9	92.5	15.4	14.1
Performance Income	-	-	-	-	14.9
Net Income	-	-	-	-	6.7
Ex-U.S.A.					
Sales	28.2	24.0	28.1	21.3	41.5
Gross Profit	2.5	0.3	5.3	(0.4)	(11.6)
MAT	0.3	0.4	0.5	0.6	0.5
Performance Income	1.1	(0.9)	4.0	(2.0)	(7.0)
Net Income	0.6	(0.6)	2.2	(2.8)	(5.6)
Capital Employed	2.9	28.7	81.9	171.2	174.7
% ROC	20.7	-	2.7	-	-
As a % of Sales:					
Gross Profit	8.9	1.2	18.9	-	-
MAT	1.1	1.7	1.8	2.8	1.2
Performance Income	3.9	-	14.2	-	-
Net Income	2.1	-	7.8	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	1976	Actual 1977	Budget 1978
Chocolate Bayou, Texas	440	445	460
Seal Sands, England	245	265	379
Texas City, Texas	-	420	420

0683044

	Actual					Budget
	1974	1975	1976	1977	1978	
World-Wide						
Depreciation	-	-	-	12.0	21.5	
Gross Property Additions	-	-	-	103.1	48.4	
Gross Property Retirements	-	-	-	0.3	-	
Fixed Capital	-	-	-	235.6	263.1	
Working Capital	-	-	-	23.8	19.0	
Gross Investment	13.8	67.4	176.6	258.8	282.1	
Avg. Selling Price/Unit (Merchant)	(1)	.232	.257	.276	.215	.231
Avg. Cost/Unit	(1)	.194	.205	.210	.209	.220
Total Production - MM Units	(1)	511	511	559	876	1063
Total Capacity - MM Units	(1)	689	705	685	1059	1259
Percent Utilization - %	(1)	89	72	96	83	84
Merchant Sales - MM Units	(1)	173	120	116	207	296
(2) Intercompany Sales - MM Units	(1)	567	459	645	687	747
Total - MM Units	(1)	720	579	761	894	1043
Market Share (MM) - %	(1)	13.5	12.3	11.0	14.4	16.2
U.S. & Export						
Depreciation	-	-	-	12.3	13.5	
Gross Property Additions	-	-	-	13.7	11.1	
Gross Property Retirements	-	-	-	0.1	-	
Fixed Capital	-	-	-	64.4	87.3	
Working Capital	-	-	-	19.3	8.0	
Gross Investment	8.6	35.2	91.4	83.7	95.3	
Avg. Selling Price/Unit (Merchant)	(1)	.207	.233	.244	.218	.239
Avg. Cost/Unit	(1)	.157	.189	.198	.201	.195
Total Production - MM Units	(1)	402	327	452	666	654
Total Capacity - MM Units	(1)	460	460	440	794	880
Percent Utilization - %	(1)	87	71	103	84	75
Merchant Sales - MM Units	(1)	32	25	10	110	125
(2) Intercompany Sales - MM Units	(1)	397	331	469	524	558
Total - MM Units	(1)	429	356	479	634	683
Market Share (MM) - %	(1)	31.8	21.0	27.0	40.6	41.7
Ex-U.S.A.						
Depreciation	-	-	-	0.7	8.0	
Gross Property Additions	-	-	-	83.4	36.9	
Gross Property Retirements	-	-	-	0.2	-	
Fixed Capital	-	-	-	170.6	175.6	
Working Capital	-	-	-	4.5	11.0	
Gross Investment	4.9	32.1	85.2	175.1	186.8	
Avg. Selling Price/Unit (Merchant)	(1)	.240	.263	.282	.211	.227
Avg. Cost/Unit	(1)	.203	.23	.229	.229	.266
Total Production - MM Units	(1)	209	184	207	210	379
Total Capacity - MM Units	(1)	229	245	241	265	378
Percent Utilization - %	(1)	91	75	85	79	100
Merchant Sales - MM Units	(1)	141	95	106	87	171
(2) Intercompany Sales - MM Units	(1)	1150	128	176	163	188
Total - MM Units	(1)	1291	223	282	250	360
Market Share (MM) - %	(1)	12.0	11.0	5.0	14.0	14.0

COMMENTS:

Major AM consumers are Acrilan, Nylon, Lustran and customer sales such as to Vistron. AM-5 at Texas City was successfully started-up in 1977. Due to lower than expected demand and the expected start-up of AM-6 (Sisal blends) in late 1978, AM-3 (Chocolate Bayou) was shut down and mothballed in late 1977. It is not expected to re-start in 1978. Start-up expenses of AM-6 coupled with excess Worldwide capacity result in budgeted losses for this product group in 1978.

NOTES: (1) These statistics are for Major Product only. By-products are excluded. COGS units represent total average cost of Major Product. (2) Intercompany sales units represent FOB shipments.

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OTHER NYLON INTERMEDIATES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	26.4	5.1	17.7	33.4	39.9
Gross Profit	12.8	3.0	18.2	19.2	15.1
MAT	0.8	0.2	0.6	3.6	3.8
Performance Income	12.1	4.0	17.3	13.8	9.3
Net Income	6.3	2.0	9.0	7.2	4.8
Capital Employed	22.6	19.4	31.1	24.8	32.6
% ROC	27.9	10.3	28.9	29.0	14.7
As a % of Sales:					
Gross Profit	48.5	58.8	102.8	57.5	37.0
MAT	3.0	3.9	3.4	10.8	9.5
Performance Income	45.8	78.4	97.7	41.3	23.3
Net Income	23.9	39.2	50.8	21.6	12.0
U.S. and Export					
Sales	26.4	5.1	17.7	33.4	39.9
Gross Profit	12.8	3.0	18.1	18.3	15.0
MAT	0.8	0.2	0.6	3.4	3.5
Performance Income	12.1	4.1	17.8	15.2	11.6
Net Income	6.3	2.0	9.3	8.1	6.0
Capital Employed	22.6	15.6	19.6	21.8	27.9
% ROC	27.9	14.1	47.4	37.2	21.5
As a % of Sales:					
Gross Profit	48.5	58.8	102.3	54.8	37.6
MAT	3.0	3.9	3.4	10.2	8.7
Performance Income	45.8	80.4	100.6	45.5	23.3
Net Income	23.9	39.2	52.5	24.3	15.0
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	0.1	0.9	0.1
MAT	-	-	-	0.2	0.3
Performance Income	-	(0.1)	(0.5)	(1.4)	(2.3)
Net Income	-	-	(0.3)	(0.9)	(1.2)
Capital Employed	-	3.8	11.5	3.0	4.7
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	Millions of Pounds		
	Actual	Budget	
	1976	1977	1978
Decatur - Hexamethylenediamine	110	186	186
Pensacola - Nylon Salt	394	493	493
Greenwood - Nylon Salt	202	207	207
Echternach- Nylon Salt	-	120	120

0683046

OTHER NYLON INTERMEDIATES
AMOUNTS IN MILLIONS

MCIC-56

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	8.4	7.0
Gross Property Additions	-	-	-	9.2	12.6
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	45.2	26.7
Working Capital	-	-	-	10.7	10.3
Gross Investment	48.8	38.2	55.0	55.9	67.0
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
U.S. & Export					
Depreciation	-	-	-	8.4	7.0
Gross Property Additions	-	-	-	9.2	12.6
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	45.2	53.0
Working Capital	-	-	-	1.5	8.0
Gross Investment	48.8	34.9	43.5	52.7	61.8
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
Ex U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	2.9
Working Capital	-	-	-	3.2	2.3
Gross Investment	-	3.8	11.5	3.2	5.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Other Intermediates include nylon salt, hexamethylenediamine and by-products. Nylon salt is used in the manufacture of fibers and plastic, with market growth forecasted at 6% per year. Hexamethylenediamine, a nylon intermediate, sales are minor with market growth projected at somewhat greater than 6% per year.

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MONSANTO COMMERCIAL
PRODUCTS CO.

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ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

0683049

MONSANTO COMMERCIAL PRODUCTS COMPANY
MAJOR PRODUCT DATA BOOK

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MONSANTO COMMERCIAL PRODUCTS COMPANY
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	300.6	320.5	394.9	386.8	407.7
Gross Profit	77.4	101.5	127.5	138.3	144.5
MAT	54.4	66.1	75.4	93.8	103.7
Performance Income	15.5	29.2	45.9	34.7	28.5
Net Income	6.3	13.5	22.9	16.4	12.0
Capital Employed	140.5	148.6	172.6	205.4	236.3
% ROC	4.5	9.1	13.3	8.0	5.1
<u>U.S. and Export</u>					
Sales	278.5	291.7	359.4	342.8	365.2
Gross Profit	68.0	88.3	113.9	121.2	127.6
MAT	49.8	60.4	68.3	84.1	93.1
Performance Income	12.3	24.7	43.2	31.1	26.3
Net Income	4.7	11.4	21.6	14.9	11.2
Capital Employed	121.6	125.8	146.3	171.5	198.7
% ROC	3.9	9.1	14.8	8.7	5.6
<u>Ex-U.S.A.</u>					
Sales	22.1	28.8	35.5	44.0	42.5
Gross Profit	9.4	13.2	13.6	17.1	16.9
MAT	4.6	5.7	7.1	9.7	10.6
Performance Income	3.2	4.5	2.7	3.6	2.2
Net Income	1.6	2.1	1.3	1.5	0.8
Capital Employed	18.9	22.8	26.3	33.9	37.6
% ROC	8.5	9.2	4.9	4.4	2.1

Form 1

0683051

MONSANTO COMMERCIAL PRODUCTS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
 (Amounts in Millions)

MCPC-2

Dollar Investment

1976	\$ 22	\$ 2	\$137	\$ 12	\$173
1977	73	-	3	129	205
1978 Budget	83	-	146	7	236

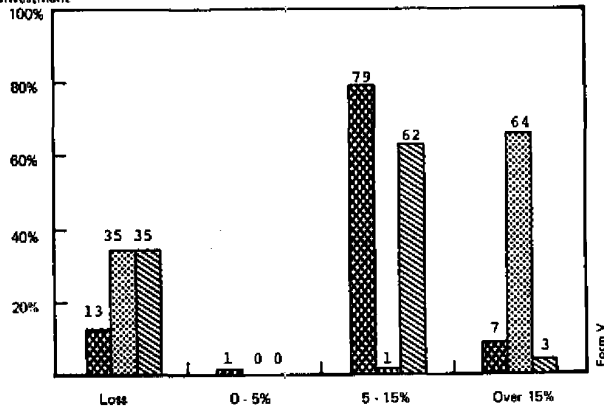
ROC Grouping Loss 0 - 5% 5 - 15% Over 15% Total

1976 

1977 

1978
Budget 

Percentage of
Total Investment



ROC Grouping

0683052

MONSANTO COMMERCIAL PRODUCTS COMPANY
 WORLDWIDE PRODUCT NET CASH FLOW ANALYSIS
 (Amounts in Millions)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> Budget
<u>Total Commercial Products</u>					
Net Income After Tax	\$ 6.3	\$ 13.5	\$ 22.9	\$ 16.4	\$ 12.0
Change in Capital Employed	<u>(13.3)</u>	<u>(8.1)</u>	<u>(24.0)</u>	<u>(32.8)</u>	<u>(30.9)</u>
Net Cash Flow	<u>\$ (7.0)</u>	<u>\$ 5.4</u>	<u>\$ (1.1)</u>	<u>\$ (16.4)</u>	<u>\$ (18.9)</u>
<u>Electronics</u>					
Net Income After Tax	\$ 1.2	\$ (1.6)	\$ 3.5	\$ (5.5)	\$ (9.3)
Change in Capital Employed	<u>(5.9)</u>	<u>5.9</u>	<u>(14.2)</u>	<u>(3.0)</u>	<u>(9.9)</u>
Net Cash Flow	<u>\$ (4.7)</u>	<u>\$ 4.3</u>	<u>\$ (10.7)</u>	<u>\$ (8.5)</u>	<u>\$ (19.2)</u>
<u>Fisher Controls</u>					
Net Income After Tax	\$ 5.8	\$ 12.4	\$ 13.5	\$ 19.0	\$ 20.8
Change in Capital Employed	<u>(9.3)</u>	<u>(19.4)</u>	<u>(17.7)</u>	<u>(29.7)</u>	<u>(21.1)</u>
Net Cash Flow	<u>\$ (3.5)</u>	<u>\$ (7.0)</u>	<u>\$ (4.2)</u>	<u>\$ (10.7)</u>	<u>\$ (0.3)</u>
<u>Enviro-Chem</u>					
Net Income After Tax	\$ (0.1)	\$ 3.0	\$ 6.0	\$ 4.1	\$ 1.3
Change in Capital Employed	<u>12.6</u>	<u>2.2</u>	<u>(3.2)</u>	<u>(2.3)</u>	<u>(5.7)</u>
Net Cash Flow	<u>\$ 12.5</u>	<u>\$ 5.2</u>	<u>\$ 2.8</u>	<u>\$ 1.8</u>	<u>\$ (4.4)</u>

0683053

MONSANTO COMMERCIAL PRODUCTS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT
 (Amounts in Millions)

DIVISION	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
Electronics	\$ 60.9	5.7%	\$ 63.9	-	\$ 73.8	-
Fisher Controls	116.3	11.6	146.0	13.0	167.1	12.4
Enviro-Chem	0.7	857.1	3.0	136.7	8.7	14.9
Other	(5.3)	-	(7.5)	-	(13.3)	-
Total MCPC	<u>\$172.6</u>	13.3%	<u>\$205.4</u>	8.0%	<u>\$236.3</u>	5.1%
MAJOR PRODUCTS	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
Valves, Regulators & Controllers	\$101.0	14.5%	\$126.6	16.3%	\$142.6	14.4%
Silicon	38.6	9.5	38.4	-	51.9	-
Electronics Process Controls	14.3	-	16.5	-	21.1	-
Optoelectronic Devices	18.1	-	16.3	-	11.8	-
III-V Materials	10.2	18.6	9.2	-	10.1	-
MDCC Die Castings	2.7	11.5	2.8	14.9	3.4	14.7
Vanadium Catalyst	2.5	76.0	2.5	52.0	3.8	21.1
Equipment	1.8	77.8	1.5	60.0	3.5	28.6
Sulfuric Acid Fees	0.4	150.0	0.3	100.0	0.2	59.0
Sulfuric Acid Plants	(1.5)	-	(1.5)	-	1.0	-
Other	(7.5)	-	(7.2)	-	(13.1)	-
Total	<u>\$172.6</u>	13.3%	<u>\$205.4</u>	8.0%	<u>\$236.3</u>	5.1%

0683054

MONSANTO COMMERCIAL PRODUCTS COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
(Amounts in Millions)

<u>1977 Capital Employed</u>	<u>Major Product</u>	<u>1977 Net Income Loss</u>
\$38.4	Silicon	\$1.7
16.5	Electronic Process Controls	1.9
16.3	Optoelectronic Devices	1.3
9.2	III-V Materials	2.3

0603055

MONSANTO COMMERCIAL PRODUCTS COMPANY
MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING -1977
(Amounts in Millions)

← Net Income Return on Capital →

Capital Employed	Loss	0% - 5%	5% - 15%	Over 15%
Over \$50				Valves, Regulators, Controllers \$126.6 16.3%
\$25-50	Silicon \$38.4 - %			
\$10-25	Electronic Process Controls \$16.5 - % Optoelectronic Devices 16.3 -			
\$ 5-10	III-V Materials \$ 9.2 - %			
Under \$5	Other \$(7.2) - %		Die Castings \$2.8 14.9%	Vanadium Catalyst \$ 2.5 52.0% Equipment 1.5 60.0 Sulfuric Acid Fees 0.3 100.0 Sulfuric Acid Plants (1.5) N/A
Total Capital Employed \$205.4	\$73.2		\$2.8	\$129.4

0683056

MCP-5

ELECTRONICS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	75.5	51.6	75.5	71.0	77.6
Gross Profit	14.7	6.0	17.0	5.8	2.8
MAT	8.5	7.6	8.9	13.2	16.1
Performance Income	4.8	(2.2)	7.7	(8.6)	(16.7)
Net Income	1.2	(1.6)	3.5	(5.5)	(9.3)
Capital Employed	52.6	46.7	60.9	63.9	73.8*
% ROC	2.3	-	5.7	-	-
As a % of Sales:					
Gross Profit	23.1	14.5	22.5	8.2	3.6
MAT	11.3	14.7	11.8	18.6	20.7
Performance Income	6.4	-	10.2	-	-
Net Income	1.6	-	4.6	-	-
U.S. and Export					
Sales	70.5	49.7	72.1	65.2	72.5
Gross Profit	10.9	3.7	16.3	4.0	3.3
MAT	8.0	7.3	8.7	12.8	15.2
Performance Income	1.7	(3.9)	7.8	(9.0)	(15.0)
Net Income	(0.4)	(2.4)	3.5	(5.5)	(8.7)
Capital Employed	45.6	39.3	52.0	52.5	61.8*
% ROC	-	-	6.7	-	-
As a % of Sales:					
Gross Profit	15.5	7.4	22.6	6.1	4.6
MAT	11.3	14.7	12.1	19.6	21.0
Performance Income	2.4	-	10.8	-	-
Net Income	-	-	4.9	-	-
Ex-U.S.A.					
Sales	5.0	1.9	3.4	5.8	5.1
Gross Profit	3.8	2.2	0.7	1.8	(0.5)
MAT	0.5	0.3	0.2	0.4	0.9
Performance Income	3.1	1.7	(0.1)	0.4	(1.7)
Net Income	1.6	0.8	-	-	(0.6)
Capital Employed	7.0	7.4	8.9	11.4	12.0
% ROC	22.9	10.8	-	-	-
As a % of Sales:					
Gross Profit	76.0	115.8	20.6	31.0	--
MAT	10.0	15.8	5.9	6.9	17.6
Performance Income	62.0	89.5	-	6.9	-
Net Income	32.0	42.1	-	-	-

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* Investment restated to agree with Long Range Plan

ELECTRONICS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	5.2	6.5	6.5	6.8	6.7
Gross Property Additions	10.6	6.8	6.9	8.7	18.0
Gross Property Retirements	1.1	1.4	3.2	1.3	6.0
Fixed Capital	54.8	60.2	63.9	71.3	83.3
Working Capital	24.7	16.6	30.8	32.4	33.4
Gross Investment	79.5	76.8	94.7	103.7	116.7
U.S. & Export					
Depreciation	3.9	4.9	5.2	5.7	5.5
Gross Property Additions	9.6	5.1	5.7	6.5	15.5
Gross Property Retirements	1.1	1.4	2.8	1.0	4.2
Fixed Capital	46.7	50.4	53.3	58.8	70.1
Working Capital	21.6	14.9	27.1	26.6	27.3
Gross Investment	68.3	65.3	80.4	85.4	97.4
Ex-U.S.A.					
Depreciation	1.3	1.6	1.3	1.1	1.2
Gross Property Additions	1.0	1.7	1.2	2.9	2.5
Gross Property Retirements	-	-	0.4	1.0	1.8
Fixed Capital	8.1	9.8	10.6	12.5	13.2
Working Capital	3.1	1.7	3.7	5.8	6.1
Gross Investment	11.2	11.5	14.3	18.3	19.3

COMMENTS:

The Electronics Division is composed of three business groups; Silicon materials, the largest domestic producer of Silicon wafers for semiconductor devices and circuits; III-V materials, the major merchant supplier of light emitting materials; and Optoelectronic Devices, the application of optoelectronics to the necessary visual interface between man and electronic systems.

The Division posted gains in sales revenue in 1977, although the sales and income fell well below projections. Competitive price pressures and moderate industry growth curtailed gains in III-V materials and Optoelectronic Devices. Substantial gains in Silicon volumes were obtained on the basis of lower selling prices in 1977 due to implementation of effective cost reduction programs, and a continuation of this trend is reflected in 1978. Silicon volumes will increase 22%, twice the market growth rate, but additional price reductions permitted by continuation of effective cost reduction programs will provide only a modest revenue gain.

Plans for III-V materials and Optoelectronic Device business units establish a programmed divestiture during the year, with operations to be run as an on-going, active posture to maximize sales value. No gains or losses from book value have been recognized in the 1978 Budget.

Cost reduction programs and Technology will play a strategic role in 1978 for Silicon. Process yield and performance improvements will be emphasized in addition to the development of automation and modernization of facilities. For the future, Technology will explore alternative routes to low cost Silicon.

0683058

SILICON
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	48.2	25.0	42.1	47.2	48.9
Gross Profit	15.8	2.3	9.4	4.3	(2.3)
MAT	2.5	2.4	2.9	5.6	10.4
Performance Income	12.7	(0.3)	6.4	(2.2)	(13.9)
Net Income	6.1	(0.1)	3.1	(1.7)	(7.6)
Capital Employed	23.7	25.0	32.6	38.4	51.9*
% ROC	25.7	-	9.5	-	-
As a % of Sales:					
Gross Profit	32.6	9.2	22.3	9.1	-
MAT	5.2	9.6	6.8	11.9	21.3
Performance Income	26.3	-	15.2	-	-
Net Income	12.7	-	7.4	-	-
U.S. and Export					
Sales	43.2	23.1	38.7	41.4	43.8
Gross Profit	13.6	0.4	9.3	4.0	(0.4)
MAT	2.2	2.1	2.7	5.2	9.5
Performance Income	10.8	(1.8)	6.9	(1.7)	(10.8)
Net Income	5.2	(0.8)	3.3	(1.3)	(5.9)
Capital Employed	21.4	20.8	28.0	31.0	42.7*
% ROC	24.3	-	11.8	-	-
As a % of Sales:					
Gross Profit	8.3	1.7	24.0	9.7	-
MAT	5.1	9.1	7.0	12.6	21.7
Performance Income	25.0	-	17.8	-	-
Net Income	12.0	-	8.5	-	-
Ex-U.S.A.					
Sales	5.0	1.9	3.4	5.8	5.1
Gross Profit	2.2	1.9	0.1	0.3	(1.9)
MAT	0.3	0.3	0.2	0.4	0.9
Performance Income	1.9	1.5	(0.5)	(0.5)	(3.1)
Net Income	0.9	0.7	(0.2)	(0.4)	(1.7)
Capital Employed	2.3	4.2	4.6	7.4	9.2
% ROC	39.1	16.7	-	-	-
As a % of Sales:					
Gross Profit	44.0	100.0	2.9	5.1	-
MAT	6.0	15.8	5.9	6.9	17.6
Performance Income	38.0	78.9	-	-	-
Net Income	18.0	36.8	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Locations: Ghent, Belgium
Kuala Lumpur, Malaysia
St. Peters, Missouri, U.S.A.

* Investment restated to agree with Long Range Plan

0683059

SILICON
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	5.3	3.8	3.9	4.0	4.5
Gross Property Additions	1.8	5.1	4.2	6.7	17.5 (2)
Gross Property Retirements	1.8	1.0	1.1	1.1	3.8
Fixed Capital	35.8	39.8	47.0	48.5	62.7
Working Capital	11.6	9.0	14.4	17.8	19.4
Gross Investment	41.4	47.9	57.6	66.4	81.7
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	48.2	25.0	47.1	47.2	48.9
Intracompany Sales - MM \$	-	-	-	-	-
Total - MM \$	48.2	25.0	47.1	47.2	48.9
Market Share (MM) - %	29	31	32	34	36
U.S. & Export					
Depreciation	2.7	3.0	3.3	3.7	3.9
Gross Property Additions	5.6	3.9	3.6	5.3	15.3
Gross Property Retirements	0.8	1.0	0.7	0.8	3.2
Fixed Capital	30.7	33.6	36.5	41.0	51.0
Working Capital	10.0	7.1	13.0	15.8	14.7
Gross Investment	40.7	40.7	49.5	54.8	67.7
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	43.2	23.1	38.7	41.4	43.8
Intracompany Sales - MM \$	-	-	-	-	-
Total - MM \$	43.2	23.1	38.7	41.4	43.8
Market Share (MM) - %	33	31	35	42	45
Ex-U.S.A.					
Depreciation	0.6	0.8	0.6	0.3	0.6
Gross Property Additions	0.2	1.2	0.6	1.4	2.2
Gross Property Retirements	-	-	0.4	0.3	0.5
Fixed Capital	5.1	4.3	6.5	7.6	9.1
Working Capital	0.6	0.9	1.6	4.0	4.7
Gross Investment	5.7	7.2	8.1	12.6	14.9
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	5.0	1.9	2.4	5.0	5.1
Intracompany Sales - MM \$	-	-	-	-	-
Total - MM \$	5.0	1.9	2.4	5.0	5.1
Market Share (MM) - %	15	15	15	16	20

COMMENTS:

Monsanto's silicon materials group is one of the two largest suppliers of electronic grade silicon products for use in the manufacture of semiconductor devices, such as integrated circuits and power transistors. Over 70% of our sales are in the form of polished wafers. In addition, about 15% of sales are in single crystal ingots and 15% plain unpolished wafers used for solar cell material and power devices.

Sales to accounts with in-house capability, i.e., captive, represent 23% of total sales. Of the top ten accounts, 7 are non-captive, including General Electric, Honeywell, National Semiconductor, AMI, Signetics, and Intel. IBM, Motorola and RCA are the only top ten accounts with in-house capability and we are the major outside source for their purchases.

In 1977 Monsanto's worldwide relative market share is 0.8% compared to the prime competitor, Wacker Chemitronics. The U.S. relative share is 1.2%, with Europe at 0.1%. Large in-house manufacturers are Texas Instruments, Motorola, and Fairchild, with facilities 35% to 70% the size of Monsanto. Wacker additionally supplies polycrystalline silicon and may have a current cost advantage of 1.1-1.2% due to volume leverage and the latest generation of equipment. Planned expansion and modernization, when complete, will reverse these cost advantages.

(1) Budget revised to agree with the long range plan.

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	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.0	12.4	14.1	5.8	5.9
Gross Profit	2.1	5.2	4.5	(2.2)	(0.5)
MAT	1.6	0.9	1.2	1.8	1.4
Performance Income	0.2	4.3	3.6	(4.2)	(2.3)
Net Income	0.1	2.3	1.9	(2.3)	(1.3)
Capital Employed	11.2	8.9	10.2	9.2	10.1
% ROC	0.9	25.8	18.6	-	-
As a % of Sales:					
Gross Profit	26.3	41.9	31.9	-	-
MAT	20.0	7.3	8.5	31.0	25.4
Performance Income	2.5	34.7	25.5	-	-
Net Income	1.3	18.5	13.5	-	-
U.S. and Export					
Sales	8.0	12.4	14.1	5.8	5.9
Gross Profit	2.1	5.2	4.5	(2.2)	(0.5)
MAT	1.6	0.9	1.2	1.8	1.5
Performance Income	0.2	4.3	3.6	(4.2)	(2.3)
Net Income	0.1	2.3	1.9	(2.3)	(1.3)
Capital Employed	11.2	8.9	10.2	9.2	10.1
% ROC	0.9	25.8	18.6	-	-
As a % of Sales:					
Gross Profit	26.3	41.9	31.9	-	-
MAT	20.0	7.3	8.5	31.0	25.4
Performance Income	2.5	34.7	25.5	-	-
Net Income	1.3	18.5	13.5	-	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Locations: St. Peters, Missouri, U.S.A.

0683061

III-V
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.4	1.2	1.1	1.5	1.1
Gross Property Additions	2.9	0.5	1.9	0.8	-
Gross Property Retirements	-	-	0.5	-	-
Fixed Capital	8.0	8.5	10.5	11.3	11.3
Working Capital	4.5	3.8	6.5	4.6	5.5
Gross Investment	12.5	12.3	17.0	15.9	16.8
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	8.0	12.4	14.1	5.8	5.9
Intercompany Sales - MM \$	2.4	2.1	2.6	0.8	1.2
Total - MM \$	10.4	14.5	16.7	6.6	7.1
Market Share (MM) - %	60	72	80	88	80
U.S. & Export					
Depreciation	0.6	1.2	1.1	1.5	1.1
Gross Property Additions	2.9	0.5	1.9	0.8	-
Gross Property Retirements	-	-	0.5	-	-
Fixed Capital	9.0	8.5	10.5	11.3	11.3
Working Capital	4.5	3.8	6.5	5.1	5.5
Gross Investment	12.5	12.3	17.0	15.9	16.8
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	8.0	12.4	14.1	5.8	5.9
Intercompany Sales - MM \$	2.4	2.1	2.6	0.8	1.2
Total - MM \$	10.4	14.5	16.7	6.6	7.1
Market Share (MM) - %	60	72	80	88	80
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	-	-	-	-	-
Intercompany Sales - MM \$	-	-	-	-	-
Total - MM \$	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Nonasato has been a major merchant supplier of light emitting materials for calculators and watch displays, with lesser amounts used in other display devices. Our current merchant market share is estimated at 88% with predominance in the standard red material (GaAs/GaAsP) and a leading position in GaP/GaAsP (green, yellow, orange - referred to as GYO).

In 1977 the market suffered a major decline and readjustment from the high level set in 1976. Recovery from the 1977 level is reflected in the 1978 budget as the business will be operated to maximize its return as an operating entity.

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OPTOELECTRONIC DEVICES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	19.2	14.2	19.3	18.0	22.8
Gross Profit	(3.2)	(1.5)	3.1	3.7	5.6
MAT	4.4	4.3	4.8	5.8	4.3
Performance Income	(8.1)	(6.2)	(2.3)	(2.2)	(0.5)
Net Income	(5.0)	(3.8)	(1.5)	(1.3)	(0.4)
Capital Employed	17.7	12.8	18.1	16.3	11.8
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	6.1	20.6	24.6
MAT	22.8	29.9	24.8	32.2	18.9
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	19.2	14.2	19.3	18.0	22.8
Gross Profit	(4.8)	(1.9)	2.4	2.2	4.2
MAT	4.2	4.3	4.8	5.8	4.3
Performance Income	(9.3)	(6.4)	(2.7)	(3.1)	(1.9)
Net Income	(5.7)	(3.9)	(1.7)	(1.7)	(1.5)
Capital Employed	12.9	9.5	13.8	12.3	9.0
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	12.4	12.2	18.4
MAT	21.8	30.3	24.9	32.2	18.9
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	1.6	0.3	0.7	1.5	1.4
MAT	0.2	-	-	-	-
Performance Income	1.2	0.2	0.4	0.9	1.4
Net Income	0.7	0.1	0.2	0.4	1.1
Capital Employed	4.8	3.3	4.3	4.0	2.8
% ROC	14.6	3.0	4.7	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Locations: Palo Alto, California, U.S.A.
Kuala Lumpur, Malaysia
Jakarta, Indonesia (in liquidation)
St. Peters, Missouri, U.S.A.

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OPTOELECTRONIC DEVICES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	1.3	1.5	2.3	1.3	1.1
Gross Property Additions	1.9	1.2	0.8	1.2	0.5
Gross Property Retirements	0.3	0.4	1.6	0.1	2.2
Fixed Capital	11.8	11.9	10.4	11.4	9.7
Working Capital	9.6	4.8	9.7	18.0	5.5
Gross Investment	20.6	16.6	20.1	21.4	10.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	19.2	14.2	19.3	18.0	22.8
Intercompany Sales - MM \$	-	-	-	-	-
Total - MM \$	19.2	14.2	19.3	18.0	22.8
Market Share (Mkt) - %	14	16	15	15	16
U.S. & Export					
Depreciation	1.6	0.7	0.6	0.5	0.5
Gross Property Additions	1.1	0.7	0.2	0.4	0.2
Gross Property Retirements	1.3	8.4	1.6	0.2	0.9
Fixed Capital	4.0	8.3	6.3	6.5	5.8
Working Capital	7.1	4.0	7.6	8.2	7.1
Gross Investment	13.1	12.1	13.9	14.7	12.9
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	11.2	14.2	19.3	18.0	22.8
Intercompany Sales - MM \$	-	-	-	-	-
Total - MM \$	11.2	14.2	19.3	18.0	22.8
Market Share (Mkt) - %	14	16	15	15	16
Ex-U.S.A.					
Depreciation	0.7	0.8	0.7	0.8	0.6
Gross Property Additions	0.8	0.5	0.6	0.8	0.3
Gross Property Retirements	-	-	-	-	1.3
Fixed Capital	3.0	3.5	4.1	4.9	1.9
Working Capital	2.5	0.8	2.1	1.8	1.4
Gross Investment	5.5	4.3	6.2	6.7	5.3
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM \$	-	-	-	-	-
Intercompany Sales - MM \$	-	-	-	-	-
Total - MM \$	-	-	-	-	-
Market Share (Mkt) - %	-	-	-	-	-

COMMENTS:

Monsanto's Optoelectronics group has been a leading supplier of solid state optoelectric devices and materials for use in communications, consumer, industrial, and computer equipment. High-volume/high performance standardized products have been emphasized consistent with our recognized position in materials technology. Conventions have been directed toward new brighter color materials, lamps and displays, larger digit and alpha-numeric displays, and the integration of optoelectronics with certain functions in optoisolators, detectors, and displays.

Market growth in volume is projected to continue, but at lower unit prices resulting in little change in revenue from 1977 to 1978. Strategic examination of devices has resulted in a planned divestiture of the business during 1978. Alternative positions in conjunction with III-V materials and the needs of potential buyers will continue to be evaluated. Liquidation of the Jakarta site is planned for 1978. No other gains or losses from book value have been budgeted in 1978 for the sale of the Optoelectronics unit.

0683064

FISHER CONTROLS COMPANY
TOTAL PRODUCT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	138.2	185.6	210.8	263.9	303.4
Gross Profit	57.0	82.7	91.2	115.9	131.1
MAT	41.0	52.7	58.1	70.9	78.7
Performance Income	11.8	25.2	27.4	38.2	44.1
Net Income	5.8	12.4	13.5	19.0	20.8
Capital Employed	79.2	98.6	116.3	146.0	167.1
% ROC	7.3	12.6	11.6	13.0	12.4
As a % of Sales:					
Gross Profit	41.3	44.6	43.3	43.9	43.2
MAT	29.7	28.4	27.6	26.9	25.9
Performance Income	8.5	13.6	13.0	14.5	14.5
Net Income	4.2	6.7	6.4	7.2	6.9
U.S. and Export					
Sales	122.0	164.5	184.5	233.8	270.0
Gross Profit	50.7	73.0	79.2	102.0	115.5
MAT	36.5	47.9	52.0	62.7	70.0
Performance Income	11.0	22.4	24.3	36.0	40.9
Net Income	5.4	11.0	12.0	17.7	19.7
Capital Employed	67.9	84.3	100.1	125.2	142.5
% ROC	8.0	13.1	12.0	14.1	13.8
As a % of Sales:					
Gross Profit	41.6	44.3	42.9	43.6	42.7
MAT	29.9	29.1	28.2	26.8	25.9
Performance Income	9.0	13.6	13.2	15.4	15.1
Net Income	4.4	6.7	6.5	7.6	7.3
Ex-U.S.A.					
Sales	18.6	27.5	30.7	36.0	33.4
Gross Profit	6.4	10.5	12.1	14.1	15.6
MAT	4.5	5.4	6.3	8.5	8.7
Performance Income	0.8	2.8	3.4	2.9	3.2
Net Income	0.4	1.3	1.6	1.4	1.1
Capital Employed	11.3	15.3	17.0	21.4	24.6
% ROC	3.3	8.5	9.4	6.5	4.5
As a % of Sales:					
Gross Profit	34.3	38.2	39.5	39.1	46.7
MAT	24.2	19.7	20.6	23.7	26.0
Performance Income	4.2	10.0	11.0	8.1	9.6
Net Income	2.0	4.8	5.2	3.8	3.3

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683065

FISHER CONTROLS COMPANY

TOTAL PRODUCT

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	2.8	3.3	3.9	4.2	4.7
Gross Property Additions	3.7	13.2	12.1	11.7	17.3
Gross Property Retirements	0.4	1.4	1.6	1.0	0.5
Fixed Capital	52.6	66.9	76.8	88.4	87.8
Working Capital	52.0	60.9	72.1	92.2	119.0
Gross Investment	104.6	127.8	148.9	180.6	200.0
U.S. & Export					
Depreciation	2.4	2.8	3.3	3.8	4.0
Gross Property Additions	2.8	10.9	9.9	10.5	13.6
Gross Property Retirements	0.4	1.3	1.6	0.9	0.5
Fixed Capital	45.8	57.7	65.6	76.4	73.0
Working Capital	44.6	52.4	63.1	78.9	103.8
Gross Investment	90.4	110.1	128.7	155.3	176.8
Ex-U.S.A.					
Depreciation	0.4	0.5	0.6	0.4	0.7
Gross Property Additions	0.9	2.3	1.8	1.2	3.7
Gross Property Retirements	-	0.1	-	0.1	-
Fixed Capital	6.8	9.0	11.2	12.0	14.8
Working Capital	7.4	9.9	9.9	13.7	15.2
Gross Investment	14.2	18.9	21.1	25.7	30.0

COMMENTS:

1977 marked another year of growth for Fisher Controls Company. Sales in 1977 increased \$53.1 million or 25.7%, Gross Profit 27.1%, Performance Income 39.4%, and percent Return on Capital was 12.7%.

Order backlog reached \$139.2 million by year-end 1977, compared to \$134.0 million in 1976. Improved Sales and Performance Income were experienced in VRC and Die Casting. Improved Sales were experienced in EPC as well; but performance loss was higher.

Total Product data excludes United Systems Corporation, which was sold in 1977.

Start up in the new manufacturing plant, Sherman, Texas was \$1.2 million above the expected sales level of \$5.2 million. The new service company in Houston, Texas was also ahead of schedule with the 1977 Sales level at \$1.2 million, doubling the budget. The new Brazilian manufacturing site experienced a slower start up of \$1.3 million under the \$1.9 million budgeted sales level.

Fisher continued to be a leading supplier of automatic control equipment to such established markets as the chemical, pulp and paper, power, oil and gas production, refining, mining, and waste and water treatment industries.

0683066

FISHER CONTROLS COMPANY
VRC - VALVES, REGULATORS, AND CONTROLLERS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	127.9	170.3	186.3	230.3	260.8
Gross Profit	52.3	75.9	81.2	103.2	112.7
MAT	14.3	44.0	47.8	57.1	62.9
Performance Income	14.4	28.4	29.2	40.4	42.9
Net Income	7.2	14.2	14.6	20.6	20.6
Capital Employed	69.8	83.5	101.0	126.6	142.6
% ROC	10.3	17.1	14.5	16.3	14.4
As a % of Sales:					
Gross Profit	40.9	44.6	43.6	44.8	43.2
MAT	26.8	25.8	25.7	24.8	24.1
Performance Income	11.2	16.7	15.7	17.5	16.4
Net Income	5.6	8.4	7.9	9.0	7.9
U.S. and Export					
Sales	112.2	148.8	163.3	202.9	229.7
Gross Profit	46.2	66.7	70.8	90.3	98.8
MAT	30.2	39.6	42.5	50.0	55.7
Performance Income	13.2	25.7	26.2	36.9	39.5
Net Income	6.6	12.9	13.1	18.8	19.4
Capital Employed	60.0	70.3	87.0	111.6	120.0
% ROC	11.0	18.4	15.1	16.8	16.2
As a % of Sales:					
Gross Profit	41.2	44.8	43.4	44.5	43.0
MAT	26.9	26.6	26.0	24.6	24.2
Performance Income	11.8	17.3	16.0	18.2	17.2
Net Income	5.9	8.7	8.1	9.3	8.4
Ex-U.S.A.					
Sales	17.7	24.3	26.5	32.0	30.1
Gross Profit	6.2	9.7	10.5	13.3	13.9
MAT	4.2	4.7	5.6	7.7	7.2
Performance Income	1.2	2.7	3.0	3.2	3.4
Net Income	0.6	1.3	1.4	1.5	1.2
Capital Employed	9.8	13.2	15.2	20.0	22.6
% ROC	5.7	9.6	9.3	7.6	5.3
As a % of Sales:					
Gross Profit	35.2	39.7	39.5	41.7	46.2
MAT	23.5	19.4	21.2	24.1	23.9
Performance Income	6.7	10.9	11.3	10.0	11.3
Net Income	3.2	5.2	5.4	4.8	4.0

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Fisher Controls Company, Inc.

Marshalltown, Iowa
Coraopolis, Pennsylvania
McKinney, Texas
Sherman, Texas

Fisher Service Company

Gonzales, Louisiana
LaPorte, Texas

Fisher Controls Company of Brazil

Sao Jose dos Campos, Brazil

Fisher Controls Co. of Canada, Ltd.

Woodstock, Ontario, Canada

Fisher Governor de Mexico, S.A.

Toluca, Edo de Mexico, Mexico

DINA-Fisher, S.R.L.

Buenos Aires, Argentina

Nippon Fisher Company, Inc.

Tokyo, Japan

0683067

FISHER CONTROLS COMPANY
VRC - VALVES, REGULATORS AND CONTROLLERS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	2.1	2.9	3.4	3.4	4.0
Gross Property Additions	3.1	10.8	10.8	9.4	14.9
Gross Property Retirements	0.4	1.4	1.6	0.9	0.5
Fixed Capital	50.1	59.6	68.2	78.0	12.3
Working Capital	44.6	50.7	62.5	79.8	166.4
Gross Investment	94.2	110.3	130.7	157.8	178.7
Merchant Sales	125.6	166.4	181.6	228.1	255.1
Inter-Company Sales	5.2	3.9	4.6	2.1	5.6
Intra-Company Sales	0.1	-	0.1	0.1	0.1
Intra-Fisher Sales	-	-	-	-	-
Total Sales	127.3	170.3	186.3	230.3	260.8
Market Share M/I-1	10.2	13.0	15.0	15.0	15.0
U.S. & Export					
Depreciation	2.1	2.5	2.9	3.0	3.4
Gross Property Additions	2.6	8.6	8.6	8.2	11.3
Gross Property Retirements	0.6	1.3	1.6	0.9	0.5
Fixed Capital	44.0	51.1	58.0	66.7	73.9
Working Capital	34.1	44.1	53.4	72.0	103.8
Gross Investment	82.1	95.2	111.4	138.7	176.8
Merchant Sales	107.9	142.9	152.5	193.3	214.3
Inter-Company Sales	2.1	3.9	4.4	2.1	5.6
Intra-Company Sales	0.1	-	0.1	0.1	0.1
Intra-Fisher Sales	2.1	2.0	6.3	7.4	5.2
Total Sales	112.2	148.8	163.3	202.9	227.4
Market Share M/I-1	24.0	25.0	25.0	25.0	22.0
EXTRA					
Depreciation	0.4	0.4	0.5	0.4	0.6
Gross Property Additions	0.8	2.2	1.8	1.2	3.6
Gross Property Retirements	-	0.1	-	-	-
Fixed Capital	6.2	8.3	10.2	11.3	13.8
Working Capital	5.9	8.1	9.0	12.8	14.2
Gross Investment	12.1	16.4	19.2	24.2	28.0
Merchant Sales	17.6	24.3	26.3	32.0	33.4
Inter-Company Sales	0.1	-	0.2	-	-
Intra-Company Sales	-	-	-	-	-
Intra-Fisher Sales	-	-	-	-	-
Total Sales	17.7	24.3	26.5	32.0	33.4
Market Share M/I-1	1.7	3.6	4.0	6.0	6.0

COMMENTS:

During 1977, sales increased 24.6% as Gross Profit increased 27.1% and Performance Income 39.1%. Return on capital increased to 16.2%.

Start up in the new manufacturing plant, Sherman, Texas was \$1.2 million above the expected sales level of \$5.2 million. The new service company in Houston, Texas was also ahead of schedule with the 1977 sales level at \$1.3 million, doubling the budget. The new Brazilian manufacturing site experienced a slower start up of \$1.3 million under the \$1.9 million budgeted sales 19-01.

World market share remained at 15% in 1977.

Major industries served are chemical, pulp and paper, power, gas, oil production and refining, mining, marine, and water and waste. Mannheim and Jamesbury offer the major competition to Fisher in the VRC area.

Technological advances continue in the development in cavitation and noise control devices as well as in the new line of rotary valves.

0683068

FISHER CONTROLS COMPANY
EPC - ELECTRONIC PROCESS CONTROLS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	10.3	15.1	20.3	28.8	37.1
Gross Profit	4.7	6.4	8.7	11.2	16.7
MAT	6.7	8.6	9.7	13.1	15.3
Performance Income	(2.6)	(3.1)	(2.0)	(3.1)	0.1
Net Income	(1.7)	(2.0)	(1.4)	(1.9)	(0.3)
Capital Employed	9.8	12.8	14.3	16.5	21.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	45.5	42.4	42.9	38.8	45.0
MAT	64.8	56.6	47.9	45.6	41.2
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	9.8	12.9	17.0	26.0	33.8
Gross Profit	4.5	5.5	7.2	10.2	15.0
MAT	6.3	7.9	9.0	12.1	13.8
Performance Income	(2.2)	(3.2)	(2.4)	(2.8)	0.3
Net Income	(1.5)	(2.0)	(1.6)	(1.7)	(0.2)
Capital Employed	8.1	11.4	12.5	15.2	19.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	46.0	42.7	42.3	39.3	44.4
MAT	64.3	61.3	53.1	46.6	40.8
Performance Income	-	-	-	-	1.0
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	1.0	3.1	4.2	3.7	3.3
Gross Profit	0.2	1.0	1.5	0.9	1.7
MAT	0.4	0.7	0.7	1.0	1.5
Performance Income	(0.4)	0.1	0.4	(0.3)	(0.2)
Net Income	(0.2)	-	0.2	(0.2)	(0.1)
Capital Employed	1.7	1.4	1.8	1.3	2.0
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	23.9	31.1	36.9	25.1	51.5
MAT	35.9	21.6	17.6	27.5	45.5
Performance Income	-	3.2	9.1	-	-
Net Income	-	-	4.2	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:Fisher Controls Company, Inc.

Marshalltown, Iowa

Fisher Controls Company of Canada, Ltd.

Woodstock, Ontario, Canada

Fisher Process Equipment Ltd.

Penzance, Cornwall, United Kingdom

0683069

FISHER CONTROLS COMPANY
EPC - ELECTRONIC PROCESS CONTROLS
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	0.3	0.2	0.2	0.6	0.6
Gross Property Additions	0.5	2.7	0.4	1.8	2.4
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	2.4	5.0	5.4	7.2	11.2
Working Capital	8.3	8.9	9.3	11.1	11.6
Gross Investment	10.7	13.9	14.7	19.3	22.8
Merchant Sales	10.8	14.6	19.5	24.2	34.0
Inter-Company Sales	0.3	0.5	0.8	4.6	3.0
Intra-Company Sales	-	-	-	-	0.1
Intra-Fisher Sales	-	-	-	-	-
Total Sales	10.3	15.1	20.3	28.8	37.1
Market Share (Mtl) - %	0.8	2.0	2.6	3.9	1.9
U.S. & Export					
Depreciation	0.3	0.2	0.2	0.5	0.5
Gross Property Additions	0.4	2.5	0.4	1.9	2.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.8	4.3	4.7	6.6	10.2
Working Capital	7.0	7.9	8.3	10.1	10.6
Gross Investment	8.8	12.2	13.0	16.7	20.8
Merchant Sales	9.4	12.4	16.0	21.3	29.3
Inter-Company Sales	0.1	0.1	0.1	4.2	2.8
Intra-Company Sales	-	-	-	-	0.1
Intra-Fisher Sales	0.3	0.4	0.9	0.3	1.6
Total Sales	9.8	12.9	17.0	26.0	33.8
Market Share (Mtl) - %	3.8	4.0	4.3	3.7	3.7
Ex-U.S.A.					
Depreciation	-	0.1	-	-	0.1
Gross Property Additions	0.1	0.3	-	0.1	0.1
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	0.6	0.7	0.7	0.7	1.0
Working Capital	1.3	1.0	0.9	0.9	1.0
Gross Investment	1.9	1.7	1.6	1.6	2.0
Merchant Sales	0.6	2.2	3.5	3.3	3.1
Inter-Company Sales	0.2	0.4	0.7	0.4	0.2
Intra-Company Sales	-	-	-	-	-
Intra-Fisher Sales	0.2	0.5	-	-	-
Total Sales	1.0	3.1	4.2	3.7	3.3
Market Share (Mtl) - %	-	0.6	0.8	0.4	0.3

COMMENTS:

Sales of Electronic Process Controls were \$28.8 million in 1977, an increase of 41.9% over 1976. The relatively high R&D spending, primarily in Technical and Marketing is deemed necessary to keep Fisher Technologically current and to supply the needed sales push for this emerging product line.

Major products in the EPC product line include electronic analog control room instruments (ac²), electronic transmitters, and a process control mini computer (dc²) with related software and control application packages. Major industries served are gas, chemical, metals, food and beverage, pulp and paper, and power. Foxboro is the largest competitor. Other U.S. based competitors are Honeywell, Taylor, Bailey Meter, Leeds & Northrup and Fischer & Porter.

0683070

FISHER CONTROLS COMPANY
 MDCC - DIE CASTINGS
 AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	-	4.0	5.6	6.9	7.3
Gross Profit	-	0.8	1.3	1.6	1.7
MAT	-	0.5	0.6	0.6	0.5
Performance Income	-	0.3	0.6	0.9	1.1
Net Income	-	0.1	0.3	0.4	0.5
Capital Employed	-	2.3	2.7	2.8	3.4
% ROC	-	5.9	11.5	14.9	14.7
As a % of Sales:					
Gross Profit	-	20.8	22.8	22.7	23.2
MAT	-	12.0	10.1	8.7	6.8
Performance Income	-	6.9	11.2	12.4	15.1
Net Income	-	3.4	5.6	6.2	6.8
U.S. and Export					
Sales	-	4.0	5.6	6.9	7.3
Gross Profit	-	0.8	1.3	1.6	1.7
MAT	-	0.5	0.6	0.6	0.5
Performance Income	-	0.3	0.6	0.9	1.1
Net Income	-	0.1	0.3	0.4	0.5
Capital Employed	-	2.3	2.7	2.8	3.4
% ROC	-	5.9	11.5	14.9	14.7
As a % of Sales:					
Gross Profit	-	20.8	22.8	22.7	23.2
MAT	-	12.0	10.1	8.7	6.8
Performance Income	-	6.9	11.2	12.4	15.1
Net Income	-	3.4	5.6	6.2	6.8
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Milwaukee Die Casting Company, Inc.

Milwaukee, Wisconsin

0643071

FISHER CONTROLS COMPANY

MDOC - DIE CASTINGS
AMOUNTS IN MILLIONS

MERC-22

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	0.2	0.2	0.2	0.2
Gross Property Additions	-	0.1	0.3	0.4	-
Gross Property Retirements	-	-	0.1	-	-
Fixed Capital	-	2.6	2.9	3.3	4.3
Working Capital	-	1.0	1.3	1.1	1.0
Gross Investment	-	3.7	4.2	4.4	5.3
Merchant Sales	-	2.8	4.2	4.9	5.5
Inter-Company Sales	-	-	-	-	-
Intra-Company Sales	-	-	-	-	-
Intra-Fisher Sales	-	1.2	1.4	2.0	1.8
Total Sales	-	4.0	5.6	6.9	7.3
Market Share (M%) - %	-	-	-	-	-
U.S. & Export					
Depreciation	-	0.2	0.2	0.2	0.2
Gross Property Additions	-	0.1	0.5	0.4	-
Gross Property Retirements	-	-	0.1	-	-
Fixed Capital	-	2.6	2.9	3.3	4.3
Working Capital	-	1.0	1.3	1.1	1.0
Gross Investment	-	3.7	4.2	4.4	5.3
Merchant Sales	-	2.8	4.2	4.9	5.5
Inter-Company Sales	-	-	-	-	-
Intra-Company Sales	-	-	-	-	-
Intra-Fisher Sales	-	1.2	1.4	2.0	1.8
Total Sales	-	4.0	5.6	6.9	7.3
Market Share (M%) - %	-	-	-	-	-
EUROPE					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Merchant Sales	-	-	-	-	-
Inter-Company Sales	-	-	-	-	-
Intra-Company Sales	-	-	-	-	-
Intra-Fisher Sales	-	-	-	-	-
Total Sales	-	-	-	-	-
Market Share (M%) - %	-	-	-	-	-

COMMENTS:

Sales for aluminum and zinc die castings increased \$1.3 million over 1976 or a 22.6% improvement. Gross Profit as a percent of sales remained about the same while RPT as a percent of sales decreased 1.3% points. Performance income improved 33.3% over 1976.

This acquisition by Fisher in 1975 has been a source for quality die castings for the VRC and EPC product lines, as well as a profitable enterprise supplying die castings to the midwestern U.S.

0683072

MONSANTO ENVIRO-CHEM
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	85.7	78.2	103.9	47.1	26.9
Gross Profit	5.2	11.2	17.8	14.8	10.6
MAT	4.5	4.6	6.4	6.7	7.4
Performance Income	(0.2)	6.0	10.9	7.6	2.7
Net Income	(0.1)	3.0	6.0	4.1	1.3
Capital Employed	(0.3)	(2.5)	0.7	5.0	8.7
% ROC	-	-	857.1	176.7	14.9
As a % of Sales:					
Gross Profit	6.1	14.3	17.1	31.4	39.4
MAT	5.3	5.9	6.2	14.2	27.5
Performance Income	-	7.7	10.5	16.1	10.0
Net Income	-	3.8	5.8	8.7	4.8
U.S. and Export					
Sales	84.1	76.2	102.2	44.9	22.9
Gross Profit	4.3	10.3	16.9	13.6	8.8
MAT	4.3	4.2	6.0	6.2	6.8
Performance Income	(0.9)	5.5	10.5	7.0	1.6
Net Income	(0.5)	2.7	5.8	3.8	0.8
Capital Employed	(0.3)	(3.8)	(0.1)	1.5	7.7
% ROC	-	-	-	200.0	10.4
As a % of Sales:					
Gross Profit	5.1	13.5	16.5	30.3	38.4
MAT	5.1	5.5	5.9	13.8	29.7
Performance Income	-	7.2	10.3	15.6	7.0
Net Income	-	3.5	5.7	8.5	3.5
Ex-U.S.A.					
Sales	1.6	2.0	1.7	2.2	4.0
Gross Profit	0.9	0.9	0.9	1.2	1.8
MAT	0.2	0.4	0.4	0.5	0.6
Performance Income	0.7	0.5	0.4	0.6	1.1
Net Income	0.4	0.3	0.2	0.3	.5
Capital Employed	-	1.3	0.8	1.1	1.0
% ROC	-	23.1	25.0	27.3	50.0
As a % of Sales:					
Gross Profit	56.3	45.0	52.9	54.6	45.0
MAT	12.5	20.0	23.5	22.7	15.0
Performance Income	43.8	25.0	23.5	27.3	27.5
Net Income	25.0	15.0	11.8	13.6	12.5

0483073

MONSANTO ENVIRO-CHEM
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	0.9	(0.3)	0.2	0.6	0.6
Gross Property Additions	1.5	1.9	0.7	0.5	2.8
Gross Property Retirements	0.5	1.6	0.3	0.7	-
Fixed Capital	3.3	3.6	4.0	3.8	6.6
Working Capital	(1.6)	(4.5)	(1.6)	0.8	4.5
Gross Investment	1.7	(0.9)	2.4	4.6	11.1
U.S. & Export					
Depreciation	0.9	(0.3)	0.2	0.6	0.6
Gross Property Additions	1.5	1.9	0.7	0.5	2.5
Gross Property Retirements	0.5	1.6	0.3	0.7	-
Fixed Capital	3.3	3.6	4.0	3.8	6.3
Working Capital	(1.6)	(5.9)	(2.4)	(0.2)	3.5
Gross Investment	1.7	(2.3)	1.6	3.6	9.8
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	0.3
Working Capital	-	1.4	0.8	1.0	1.0
Gross Investment	-	1.4	0.8	1.0	1.3

COMMENTS:

Property additions in 1974 and 1975 reflect the expansion of Catalyst manufacturing facilities at Avon.

0683074

**MONSANTO ENVIRO-CHEM
VANADIUM CATALYST
AMOUNTS IN MILLIONS**

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	7.8	8.5	7.8	7.5	6.9
Gross Profit	3.4	4.1	4.0	3.4	3.0
MAT	0.6	0.8	0.7	1.0	1.3
Performance Income	3.0	3.3	3.4	2.3	1.6
Net Income	1.5	1.7	1.9	1.3	0.8
Capital Employed	1.9	2.5	2.5	2.5	3.8
% ROC	78.9	68.0	76.0	52.0	21.1
As a % of Sales:					
Gross Profit	43.6	48.2	51.3	45.3	43.5
MAT	7.6	9.4	9.0	13.3	18.8
Performance Income	38.5	38.8	43.6	30.7	23.2
Net Income	19.2	20.0	24.4	17.3	11.6
U.S. and Export					
Sales	7.8	8.5	7.8	7.5	6.9
Gross Profit	3.4	4.1	4.0	3.4	3.0
MAT	0.6	0.8	0.7	1.0	1.3
Performance Income	3.0	3.3	3.4	2.3	1.6
Net Income	1.5	1.7	1.9	1.3	0.8
Capital Employed	1.9	2.5	2.5	2.5	3.8
% ROC	78.9	68.0	76.0	52.0	21.1
As a % of Sales:					
Gross Profit	43.6	48.2	51.3	45.3	43.5
MAT	7.6	9.4	9.0	13.3	18.8
Performance Income	38.5	38.8	43.6	30.7	23.2
Net Income	19.2	20.0	24.4	17.3	11.6
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Catalyst manufactured at Avon, California by MIC.

0683075

MONSANTO ENVIRO-CHEM
VANADIUM CATALYST
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	0.1	0.1	0.3	0.3
Gross Property Additions	0.5	0.5	0.4	0.1	1.0
Gross Property Retirements	-	-	-	0.3	-
Fund Capital	1.1	2.0	2.4	2.2	3.2
Working Capital	1.1	1.2	0.9	1.2	1.8
Gross Investment	2.6	3.2	3.3	3.4	5.0
Avg. Selling Price/Unit (Merchant)	1.27	1.34	1.39	1.48	1.59
Avg. Cost/Unit	.67	.68	.69	.75	.89
Total Production - MM Units	6.1	5.9	5.8	5.4	6.9
Total Capacity - MM Units	5.1	7.2	7.2	6.8	7.1
Percent Utilization - %	(12)	82	78	79	89
Merchant Sales - MM Units	6.1	6.3	5.5	5.1	4.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	6.1	6.3	5.5	5.1	4.3
Market Share (MM) - %	43	45	50	50	50
U.S. & Export					
Depreciation	-	0.1	0.1	0.3	0.3
Gross Property Additions	0.4	0.5	0.4	0.1	1.0
Gross Property Retirements	-	-	-	0.3	-
Fund Capital	1.1	2.0	2.4	2.2	3.2
Working Capital	1.1	1.1	0.9	1.2	1.8
Gross Investment	2.6	3.1	3.3	3.4	5.0
Avg. Selling Price/Unit (Merchant)	1.27	1.34	1.39	1.48	1.59
Avg. Cost/Unit	.67	.68	.69	.75	.89
Total Production - MM Units	6.1	5.9	5.6	5.4	4.9
Total Capacity - MM Units	5.1	7.2	7.2	6.8	7.1
Percent Utilization - %	(12)	82	78	79	69
Merchant Sales - MM Units	6.1	6.3	5.5	5.1	4.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	6.1	6.3	5.5	5.1	4.3
Market Share (MM) - %	43	45	50	50	50
EX U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fund Capital	-	-	-	-	-
Working Capital	-	0.1	-	-	-
Gross Investment	-	0.1	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Catalyst is used exclusively in the manufacture of sulfuric acid and is sold as the initial charge in new sulfuric acid plants and as replacement catalyst. Rapid growth in recent years resulted from EPA enforcement of SO₂ emission control and by expansion of fertilizer capacity. Sales are cyclical due to swings in new plant construction. Historical market growth has averaged 7%; growth during the next decade is projected at 4%, a reflection of worldwide excess sulfuric acid capacity. REC is the world leader supplying a catalyst which gives superior performance at a 5-10% premium price. Recohale is directed toward increasing market share by product quality improvement, intensified ex-U.S. marketing efforts and development of a low-temperature catalyst for the new plant market which will sell at three times current product price. Major competitors are BASF (12% share), Stauffer (8% share), followed by American Cyanamid, CCI, IAC Chemicals Ltd., and Topsoe.

Manufacturing facilities at Avon, California were expanded to a 2MM liter capacity in 1975; rated capacity is a function of pattern.

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MONSANTO ENVIRO-CHEM
EQUIPMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.7	11.8	9.6	9.1	11.6
Gross Profit	4.4	5.8	5.4	5.4	6.2
MAT	1.5	2.0	2.6	3.5	3.9
Performance Income	2.9	3.7	2.6	1.7	2.0
Net Income	1.5	1.8	1.4	0.9	1.0
Capital Employed	0.8	2.6	1.8	1.5	3.5
% ROC	187.5	69.2	77.8	60.0	28.6
As a % of Sales:					
Gross Profit	50.6	49.2	56.3	59.3	53.5
MAT	17.2	16.9	27.1	38.5	33.6
Performance Income	33.3	31.4	27.1	18.7	17.2
Net Income	17.2	15.3	14.6	9.9	8.6
U.S. and Export					
Sales	7.1	9.8	7.9	6.9	7.6
Gross Profit	3.5	4.9	4.5	4.2	4.4
MAT	1.3	1.6	2.2	3.0	3.3
Performance Income	2.2	3.2	2.2	1.1	0.9
Net Income	1.1	1.5	1.2	0.6	0.5
Capital Employed	0.8	1.3	1.0	0.4	2.5
% ROC	137.5	115.4	120.0	150.0	20.0
As a % of Sales:					
Gross Profit	49.3	50.0	57.0	60.9	57.9
MAT	18.3	16.3	27.8	43.5	43.4
Performance Income	31.0	32.6	27.8	15.9	11.8
Net Income	15.5	15.3	15.2	8.7	6.6
Ex-U.S.A.					
Sales	1.6	2.0	1.7	2.2	4.0
Gross Profit	0.9	0.9	0.9	1.2	1.8
MAT	0.2	0.4	0.4	0.5	0.6
Performance Income	0.7	0.5	0.4	0.6	1.1
Net Income	0.4	0.3	0.2	0.3	0.5
Capital Employed	-	1.3	0.8	1.1	1.0
% ROC	-	23.1	25.0	27.3	50.0
As a % of Sales:					
Gross Profit	56.3	45.0	52.9	54.6	45.0
MAT	12.5	20.0	23.5	22.7	15.0
Performance Income	43.8	25.0	23.5	27.3	27.5
Net Income	25.0	15.0	11.8	13.6	12.5

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Contract fabrication facilities in St. Louis. Monsanto fabrication facilities in Europe and Australia.

0683077

MONSANTO ENVIRO-CHEM
EQUIPMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	0.1	0.1	0.2	0.2
Gross Property Additions	0.1	0.1	0.3	0.3	1.4
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	0.3	0.4	0.7	0.8	2.2
Working Capital	0.6	2.4	1.4	1.1	1.8
Gross Investment	0.9	2.8	2.1	1.9	4.0
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	60	60	60	60	60
U.S. & Export					
Depreciation	-	0.1	0.1	0.2	0.2
Gross Property Additions	0.2	0.1	0.3	0.2	1.1
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	0.2	0.4	0.7	0.9	0.9
Working Capital	0.4	1.3	0.6	0.1	0.8
Gross Investment	0.9	1.5	1.3	0.9	2.7
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	60	60	60	60	60
Excl. U.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	0.3
Working Capital	-	1.3	0.8	1.0	1.0
Gross Investment	-	1.3	0.8	1.0	1.3
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	45	45

COMMENTS:

High efficiency Fiber Bed separators are used for the collection of submicron mists and soluble particles primarily by industries which have come under environmental regulation. This equipment, in substantially its present form, has served industry since its introduction in 1959. In the future markets, such as sulfuric acid and chlorine, Brink has enjoyed a 65% share of the market, while in more recent applications, such as ammonium nitrate prill towers and ammonia based sulfites, 63% of the plants use this equipment.

The market for soluble particulate collectors, the present business, is forecast to grow at a rate of 3% domestically and 12% in Europe-Africa.

Insoluble particulate collection comprises the major portion of the air pollution control market. It is currently estimated at \$600M annually and represents a major growth opportunity. This market cannot be served by existing fiber beds. It is believed a modified (electrically augmented irrigated) Brink fiber bed is applicable to at least 10% of this market. A program is under way to identify the applicable market segments, demonstrate technical feasibility, and determine patent position.

0683078

MONSANTO ENVIRO-CHEM
SULFURIC ACID PLANTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	49.9	52.7	85.4	29.7	7.9
Gross Profit	(0.1)	4.5	7.5	5.4	1.3
MAT	1.1	1.0	3.0	2.0	1.8
Performance Income	(2.0)	3.2	4.0	3.3	(0.6)
Net Income	(1.0)	1.6	2.3	1.8	(0.3)
Capital Employed	1.1	(5.1)	(3.5)	(1.5)	1.0
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	8.5	8.8	18.2	16.5
MAT	2.2	1.9	3.5	6.7	22.8
Performance Income	-	6.1	4.7	11.1	-
Net Income	-	3.0	2.7	6.1	-
U.S. and Export					
Sales	49.9	52.7	85.4	29.7	7.9
Gross Profit	(0.1)	4.5	7.5	5.4	1.3
MAT	1.1	1.0	3.0	2.0	1.8
Performance Income	(2.0)	3.2	4.0	3.3	(0.6)
Net Income	(1.0)	1.6	2.3	1.8	(0.3)
Capital Employed	1.1	(5.1)	(3.5)	(1.5)	1.0
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	8.5	8.8	18.2	16.5
MAT	2.2	1.9	3.5	6.7	22.8
Performance Income	-	6.1	4.7	11.1	-
Net Income	-	3.0	2.7	6.1	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Not applicable

0683079

MONSANTO ENVIRO-CHEM
SULFURIC ACID PLANTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	0.1	0.1
Gross Property Additions	-	0.2	-	0.2	0.4
Gross Property Retirements	0.3	-	-	0.3	-
Fixed Capital	0.1	0.3	0.9	0.8	1.2
Working Capital	2.1	(4.8)	(3.1)	(1.7)	0.5
Gross Investment	2.2	(4.5)	(2.2)	(0.9)	1.7
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	51	41	47	59	49
U.S. & Export					
Depreciation	-	-	-	0.1	0.1
Gross Property Additions	-	0.2	-	0.2	0.4
Gross Property Retirements	0.3	-	-	0.3	-
Fixed Capital	0.1	0.3	0.9	0.8	1.2
Working Capital	2.1	(4.8)	(3.1)	(1.7)	0.5
Gross Investment	2.2	(4.5)	(2.2)	(0.9)	1.7
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	52	41	47	59	49
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Enviro-Chem is the world leader in delivering sulfuric acid technology in the form of plant design and construction to the fertilizer, metallurgical, and chemical industries. This leadership position is based on a 50-year reputation for quality and performance, specialized know-how, and integration with supply of catalyst.

Sales are cyclical but historical market growth has averaged 7% per year. The major upswing in 1975 and 1976 plant awards was caused by fertilizer capacity increases and replacing/upgrading of existing plants to meet SO₂ emission controls.

Business direction is aimed at increasing profit margin and market share by improved technology, increased emphasis on ex U.S. markets and development of a low-temperature catalyst which will reduce sulfuric acid plant costs by 15-20%. Major competitors include Lurgi, Davy Powergas, Raymond-Burke, and R. W. Parsons.

(*) Market share is computed as dollar value of contracts awarded Enviro-Chem including associated contractors versus total worldwide contracts awarded.

0683080

MONSANTO ENVIRO-CHEM
SULFURIC ACID FEES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	1.2	0.3	0.9	0.8	0.5
Gross Profit	0.9	0.2	1.0	0.7	0.4
MAT	0.1	0.1	0.1	0.2	0.2
Performance Income	0.9	0.1	1.0	0.6	0.2
Net Income	0.4	-	0.6	0.3	0.1
Capital Employed	-	-	0.4	0.3	0.2
% ROC	-	-	150.0	100.0	50.0
As a % of Sales:					
Gross Profit	75.0	66.7	111.1	87.5	80.0
MAT	8.3	33.3	11.1	25.0	40.0
Performance Income	75.0	33.3	111.1	75.0	40.0
Net Income	33.3	-	66.7	37.5	20.0
U.S. and Export					
Sales	1.2	0.3	0.9	0.8	0.5
Gross Profit	0.9	0.2	1.0	0.7	0.4
MAT	0.1	0.1	0.1	0.2	0.2
Performance Income	0.9	0.1	1.0	0.6	0.2
Net Income	0.4	-	0.6	0.3	0.1
Capital Employed	-	-	0.4	0.3	0.2
% ROC	-	-	150.0	100.0	50.0
As a % of Sales:					
Gross Profit	75.0	66.7	111.1	87.5	80.0
MAT	8.3	33.3	11.1	25.0	40.0
Performance Income	75.0	33.3	111.1	75.0	40.0
Net Income	33.3	-	66.7	37.5	20.0
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Not applicable

0683081

MONSANTO ENVIRO-CHEM
SULFURIC ACID PLANTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	0.4	0.3	0.3
Gross Investment	-	-	0.4	0.3	0.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
* Market Share (MM) - %	-	-	-	-	-
U.S. & Export					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	0.4	0.3	0.2
Gross Investment	-	-	0.4	0.3	0.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
Excl. U.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Enviro-Chem provides process design and related services to licensees of the Monsanto sulfuric acid process outside the U.S. Licensees secure construction contracts with foreign companies and pay Enviro-Chem a fee for each contract secured in which our process is used.

(*) Market share included with Sulfuric Acid Plants.

0683082

MINOR PRODUCTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	18.1	4.9	2.0	-	-
Gross Profit	(3.4)	(3.4)	(0.1)	(0.1)	(0.3)
MAT	1.2	0.7	-	-	0.2
Performance Income	(5.0)	(4.3)	(0.1)	(0.3)	(0.5)
Net Income	(2.5)	(2.1)	(0.2)	(0.2)	(0.3)
Capital Employed	(4.1)	(2.5)	(0.5)	(0.1)	0.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	6.6	14.3	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	18.1	4.9	2.0	-	-
Gross Profit	(3.4)	(3.4)	(0.1)	(0.1)	(0.3)
MAT	1.2	0.7	-	-	0.2
Performance Income	(5.0)	(4.3)	(0.1)	(0.3)	(0.5)
Net Income	(2.5)	(2.1)	(0.2)	(0.2)	(0.3)
Capital Employed	(4.1)	(2.5)	(0.5)	(0.1)	0.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	6.6	14.3	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Not applicable

0683083

HONSATTO ENVIRO-CHEM
MINOR PRODUCTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
Worldwide					
Depreciation	0.9	(0.5)	-	-	-
Gross Property Additions	0.8	1.1	-	-	-
Gross Property Retirements	0.2	1.6	0.9	-	-
Fixed Capital	1.4	0.9	-	-	-
Working Capital	(5.4)	(1.3)	(0.6)	(0.1)	0.2
Gross Investment	(4.0)	(2.4)	(0.6)	(0.1)	0.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
U.S. & Export					
Depreciation	0.4	(0.5)	-	-	-
Gross Property Additions	0.8	1.1	-	-	-
Gross Property Retirements	0.2	1.6	0.9	-	-
Fixed Capital	1.4	0.9	-	-	-
Working Capital	(5.4)	(1.3)	(0.6)	(0.1)	0.2
Gross Investment	(4.0)	(2.4)	(0.6)	(0.1)	0.2
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-
Europe & Japan					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

This category includes businesses from which Enviro-Chem has withdrawn in recent years, such as Landfills and Municipal Wastes. 1978 Budget also includes technology expense involved with new business ventures.

0683084

MONSANTO INDUSTRIAL
CHEMICALS CO.

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ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

0683086

MONSANTO INDUSTRIAL CHEMICALS COMPANY
MAJOR PRODUCT DATA BOOK

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MONSANTO INDUSTRIAL CHEMICALS COMPANY
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	838.7	904.1	986.6	1,095.1	1,198.3
Gross Profit	265.0	282.9	299.0	309.4	328.1
MAT	51.3	60.8	67.3	74.7	81.3
Performance Income	203.8	214.0	221.9	219.0	230.2
Net Income	106.5	113.2	116.1	112.5	111.6
Capital Employed	445.9	488.1	582.6	674.3	751.3
% ROC	23.9	23.2	19.9	16.7	14.9
<u>U.S. and Export</u>					
Sales	689.9	759.6	815.2	894.4	961.8
Gross Profit	222.6	245.8	248.0	249.6	258.9
MAT	42.7	48.9	53.7	58.0	63.3
Performance Income	174.0	193.5	189.3	182.5	186.4
Net Income	91.3	103.2	100.1	95.7	91.4
Capital Employed	376.3	404.0	463.8	531.1	582.7
% ROC	24.3	25.5	21.6	18.0	15.7
<u>Ex-U.S.A.</u>					
Sales	148.8	144.5	171.4	200.7	236.5
Gross Profit	42.4	37.1	51.0	59.8	69.2
MAT	8.6	11.9	13.6	16.7	18.0
Performance Income	29.8	20.5	32.6	36.5	43.8
Net Income	15.2	10.0	16.0	16.8	20.2
Capital Employed	69.6	84.1	118.8	143.2	168.6
% ROC	21.8	11.9	13.5	11.7	12.0

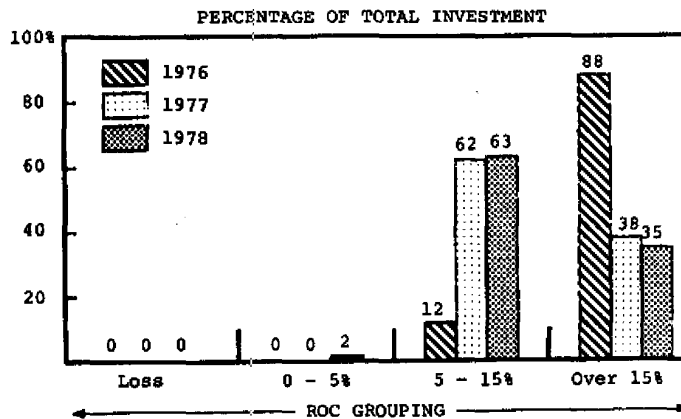
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MONSANTO INDUSTRIAL CHEMICALS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
 (Amounts in Millions)

Dollar Investment

1976	\$ -	\$ -	\$ 70.3	\$512.3	\$582.6
1977	-	-	419.4	254.9	674.3
1978 Budget	-	11.2	474.4	265.7	751.3

ROC Grouping Loss 0 - 5% 5 - 15% Over 15% Total



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MONSANTO INDUSTRIAL CHEMICALS COMPANY

WORLDWIDE PRODUCT NET CASH FLOW

(Amounts in Millions)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> <u>Budget</u>
<u>Total MIC Company</u>					
Net Income After Tax	106.5	113.2	116.1	112.5	111.6
Change in Capital Employed	(78.7)	(44.8)	(97.7)	(91.7)	(77.0)
Net Cash Flow	<u>27.8</u>	<u>68.4</u>	<u>18.4</u>	<u>20.8</u>	<u>34.6</u>
<u>Specialty Chemicals Division</u>					
Net Income After Tax	23.6	21.4	25.8	27.0	25.4
Change in Capital Employed	(13.1)	(16.3)	(38.6)	(27.2)	(20.3)
Net Cash Flow	<u>10.5</u>	<u>5.1</u>	<u>(12.8)</u>	<u>(0.2)</u>	<u>5.1</u>
<u>Detergents & Phosphates Division</u>					
Net Income After Tax	44.3	66.7	54.9	48.2	50.2
Change in Capital Employed	(38.4)	(17.8)	(26.5)	(24.1)	(19.4)
Net Cash Flow	<u>5.9</u>	<u>48.9</u>	<u>28.4</u>	<u>24.1</u>	<u>30.8</u>
<u>Rubber Chemicals Division</u>					
Net Income After Tax	22.6	18.7	26.6	30.4	29.3
Change in Capital Employed	(11.2)	(3.2)	(20.6)	(22.6)	(11.0)
Net Cash Flow	<u>11.4</u>	<u>15.5</u>	<u>6.0</u>	<u>7.8</u>	<u>18.3</u>
<u>Plasticizers Division</u>					
Net Income After Tax	21.5	11.7	15.2	12.8	14.2
Change in Capital Employed	(16.0)	(7.5)	(16.6)	(16.5)	(26.7)
Net Cash Flow	<u>5.5</u>	<u>4.2</u>	<u>(1.4)</u>	<u>(3.7)</u>	<u>(12.5)</u>

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MONSANTO INDUSTRIAL CHEMICALS COMPANY
WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT

(Amounts in Millions)

	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
DIVISIONS						
Specialty Chemicals	167.1	15.4	194.3	13.9	214.6	11.8
Detergents & Phosphates	189.2	29.0	213.3	22.6	232.7	21.6
Rubber Chemicals	120.4	22.0	143.0	21.3	154.0	19.0
Plasticizers	110.5	13.8	127.0	10.1	153.7	9.2
Eliminations	(4.6)	-	(3.3)	-	(3.7)	-
Total Company	<u>582.6</u>	19.9	<u>674.3</u>	16.7	<u>751.3</u>	14.9

MAJOR PRODUCTS

STP	60.1	27.6	71.2	19.8	69.9	20.0
Santicizer 160	32.4	17.9	43.4	8.3	50.4	10.1
Phosphoric Acid	29.1	28.9	32.2	26.1	33.2	32.5
Santicizer 711	32.2	9.0	31.2	8.7	34.2	11.4
Santoflex 13	20.5	19.0	22.8	23.7	27.7	18.1
Phosphorus	20.8	39.4	22.0	17.7	40.0	11.8
ACL	19.3	19.7	19.3	21.2	26.1	22.2
Santocure NS	13.0	26.2	19.1	28.3	16.8	22.6
Soft Alkyl Benzene	14.8	44.6	15.6	50.0	18.1	39.8
Food Phosphates	15.2	9.9	14.4	5.6	15.0	8.7
Santogard PVI	10.8	28.7	12.5	32.0	12.2	32.0
Aspirin	10.0	33.3	12.0	31.7	13.8	23.9
Phosphate Esters	10.0	6.0	11.7	5.1	11.2	1.8
Instruments & Equipment	8.8	9.1	11.0	9.1	11.1	16.2
Vanillin	8.2	48.8	8.9	66.3	11.5	48.7
Dequest	7.3	21.9	8.2	19.5	9.8	16.3
Alcohols & Derivatives	4.1	7.3	5.0	6.0	4.7	8.5
MHA	2.6	23.1	4.2	61.9	5.8	46.6
Therminol	3.3	39.4	3.4	47.1	5.0	32.0
Modaflow	1.5	80.0	1.8	61.1	2.2	54.5
Benzyl Chloride	1.9	73.7	1.7	105.9	2.5	72.0
Other	<u>256.7</u>	-	<u>302.7</u>	-	<u>330.1</u>	-
	<u>582.6</u>	19.9	<u>674.3</u>	16.7	<u>751.3</u>	14.9

0683091

MONSANTO INDUSTRIAL CHEMICALS COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
 (Amounts in Millions)

1977
Capital
Employed

Major Product

1977
Net Income
Loss

NONE IN 1977

0683092

MONSANTO INDUSTRIAL CHEMICALS COMPANY
 MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING - 1977
 (Amounts in Millions)

CAPITAL EMPLOYED	LOSS	0% - 5%	5% - 15%	OVER 15%
OVER \$50			Other \$302.7 12.5%	STP \$ 71.2 19.8%
\$25 - \$50			Santicizer 160 \$ 43.4 8.3% Santicizer 711 31.2 8.7%	Phosphoric Acid \$ 32.2 26.1%
\$10 - \$25			Food Phosphates \$ 14.4 5.6% Phosphate Esters 11.7 5.1% Instruments & Equipment 11.0 9.1%	Santoflex 13 \$ 22.8 23.7% Phosphorus 22.0 17.7% ACL 19.3 21.2% Santocure NS 19.1 28.3% Soft Alkyl Benzene 15.6 50.0% Santogard PVI 12.5 32.0% Aspirin 12.0 31.7%
\$5 - \$10			Alcohols & Derivatives \$ 5.0 6.0%	Vanillin \$ 8.9 66.3% Dequest 8.2 19.5%
UNDER \$5				MHA \$ 4.2 61.9% Therminols 3.4 47.1% Modaflow 1.8 61.1% Benzyl Chloride 1.7 105.9%
TOTAL CAPITAL EMPLOYED \$674.3			\$419.4	\$254.9

0683093

MCC - 6

DETERGENTS & PHOSPHATES DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	283.6	353.0	351.4	372.4	411.8
Gross Profit	89.9	130.2	112.4	105.2	114.2
MAT	7.4	9.8	11.8	11.2	12.0
Performance Income	81.5	122.1	101.1	90.7	99.7
Net Income	44.3	66.1	54.9	48.2	50.2
Capital Employed	144.9	162.1	189.2	213.3	232.7
% ROC	30.6	41.0	29.0	22.6	21.6
As a % of Sales:					
Gross Profit	31.7	36.9	32.0	28.2	27.7
MAT	2.6	2.8	3.4	3.0	2.9
Performance Income	28.7	34.8	28.8	24.4	24.2
Net Income	15.6	18.9	15.6	12.9	12.2
<u>U.S. and Export</u>					
Sales	281.0	350.0	342.3	358.8	387.2
Gross Profit	89.2	130.0	110.0	102.2	108.6
MAT	7.4	9.6	10.7	10.2	10.9
Performance Income	81.0	123.1	99.7	89.0	95.6
Net Income	44.1	66.8	54.3	47.5	48.4
Capital Employed	143.0	154.6	173.4	195.7	211.1
% ROC	30.8	43.2	31.3	24.3	22.9
As a % of Sales:					
Gross Profit	31.7	37.1	32.1	28.5	28.0
MAT	2.6	2.7	3.1	2.8	2.8
Performance Income	28.8	35.2	29.1	24.8	24.7
Net Income	15.7	19.1	15.9	13.2	12.5
<u>Ex-U.S.A.</u>					
Sales	2.6	3.0	9.1	13.6	24.6
Gross Profit	0.7	0.2	2.4	3.0	5.6
MAT	-	0.2	1.1	1.0	1.1
Performance Income	0.5	(0.2)	1.4	1.7	4.1
Net Income	0.2	(0.1)	0.6	0.7	1.8
Capital Employed	1.9	8.1	15.8	17.6	21.6
% ROC	10.5	-	3.8	4.0	8.3
As a % of Sales:					
Gross Profit	26.9	6.7	26.4	22.1	22.8
MAT	-	6.7	12.1	7.4	4.5
Performance Income	19.2	-	15.4	12.5	16.7
Net Income	7.7	-	6.6	5.1	7.3

0683094

DETERGENTS & PHOSPHATES DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	9.4	12.2	11.2	13.1	17.4
Gross Property Additions	11.7	32.4	39.7	18.5	28.8
Gross Property Retirements	-	-	6.1	2.8	4.5
Fixed Capital	196.1	214.4	243.5	271.3	293.7
Working Capital	80.1	85.2	87.0	96.5	98.9
Gross Investment	276.2	293.6	330.5	367.8	392.6
U.S. & Export					
Depreciation	9.3	12.0	10.6	11.7	14.9
Gross Property Additions	10.6	26.7	32.3	18.5	28.8
Gross Property Retirements	0.1	2.9	6.1	2.8	4.5
Fixed Capital	194.2	209.6	233.2	256.5	278.2
Working Capital	78.9	80.4	79.2	90.3	88.3
Gross Investment	273.1	290.0	312.4	346.8	366.5
Ex-U.S.A.					
Depreciation	0.1	0.2	0.6	1.4	2.5
Gross Property Additions	1.1	5.7	7.4	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.9	4.8	10.3	14.8	15.5
Working Capital	1.2	4.8	7.8	6.2	10.6
Gross Investment	3.1	9.6	18.1	21.0	26.1

COMMENTS:

The division's 1978 worldwide net income is budgeted to increase 4.1% over 1977 with the annual growth averaging 13.3% for the five year period. The net increase in the 1978 budget assumes success of a program to gain major long term sales contracts for supplying phosphorus to less efficient U.S. producers; declining markets for phosphate builders; and significant cost pressures in the manufacturing area, particularly energy related costs. The 1978 budget includes a posture of aggressive market pricing to pass increased manufacturing costs to the market place. Relatively significant net income gains have been budgeted for the division's Brazilian phosphate complex in 1978 reflecting improved volume in the Brazilian market place. With the discontinuance in 1978 of development activities for a non-phosphate detergent builder (builder M) and synthetic fatty acid, MAT expense has returned to levels lower than 3% of sales. 1978 new capital expenditures are primarily in the pollution control and energy reduction areas.

0683095

SOFT ALKLY BENZENE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	44.5	47.7	49.6	53.5	56.9
Gross Profit	16.9	18.7	16.5	18.1	17.1
MAT	1.3	1.8	3.3	2.8	2.0
Performance Income	14.8	16.2	12.4	14.6	14.3
Net Income	7.9	8.6	6.6	7.8	7.2
Capital Employed	16.5	14.6	14.8	15.6	18.1
% ROC	47.9	58.9	44.6	50.0	39.8
As a % of Sales:					
Gross Profit	38.0	39.2	33.3	33.8	30.1
MAT	2.9	3.8	6.7	5.2	3.5
Performance Income	33.3	34.0	25.0	27.3	25.1
Net Income	17.8	18.0	13.3	14.6	12.7
U.S. and Export					
Sales	44.5	47.7	49.6	53.5	56.9
Gross Profit	16.9	18.7	16.5	18.1	17.1
MAT	1.3	1.8	3.3	2.8	2.0
Performance Income	14.8	16.2	12.4	14.6	14.3
Net Income	7.9	8.6	6.6	7.8	7.2
Capital Employed	16.5	14.6	14.8	15.6	18.1
% ROC	47.9	58.9	44.6	50.0	39.8
As a % of Sales:					
Gross Profit	38.0	39.2	33.3	33.8	30.1
MAT	2.9	3.8	6.7	5.2	3.5
Performance Income	33.3	34.0	25.0	27.3	25.1
Net Income	17.8	18.0	13.3	14.6	12.7
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Chocolate Bayou 250.0 million pounds

0683096

SOFT ALKYL BENZENE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.8	0.7	0.5	0.4	0.5
Gross Property Additions	0.1	0.1	0.5	0.5	2.8
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	13.7	15.0	13.9	14.9	19.1
Working Capital	13.5	10.8	11.0	12.7	12.4
Gross Investment	27.2	25.8	26.9	27.6	30.5
Avg. Selling Price/Unit (Merchant)	.149	.234	.236	.247	.258
Avg. Cost/Unit	.314	.138	.154	.160	.174
Total Production - MM Units	183.3	168.6	177.2	186.2	195.0
Total Capacity - MM Units	240.0	240.0	250.0	250.0	250.0
Percent Utilization - %	76.4	70.3	70.9	74.5	78.0
Merchant Sales - MM Units	232.8	198.8	205.7	211.8	211.2
Intercompany Sales - MM Units	9.4	10.8	9.1	8.9	17.3
Total - MM Units	242.2	209.6	214.8	220.7	228.5
Market Share (Mkt) - %	-	-	-	-	-
U.S. & Export					
Depreciation	0.8	0.7	0.5	0.4	0.5
Gross Property Additions	0.1	0.1	0.5	0.5	2.8
Gross Property Retirements	-	-	-	0.1	-
Fixed Capital	13.7	15.0	13.9	14.9	19.1
Working Capital	13.5	10.8	11.0	12.7	12.4
Gross Investment	27.2	25.8	26.9	27.6	30.5
Avg. Selling Price/Unit (Merchant)	.149	.234	.236	.247	.258
Avg. Cost/Unit	.116	.138	.154	.160	.174
Total Production - MM Units	183.3	168.6	177.2	186.2	195.0
Total Capacity - MM Units	240.0	240.0	250.0	250.0	250.0
Percent Utilization - %	76.4	70.3	70.9	74.5	78.0
Merchant Sales - MM Units	232.8	198.8	205.7	211.8	211.2
Intercompany Sales - MM Units	9.4	10.8	9.1	8.9	17.3
Total - MM Units	242.2	209.6	214.8	220.7	228.5
Market Share (Mkt) - %	37	36	36	35	35
Each S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mkt) - %	-	-	-	-	-

COMMENTS:

The primary market for alkylate is the detergent industry with P&G, Lever, and Colgate the major customers. Monsanto has 35% of the North American \$15 million pound market while competitors - Conoco, Union Carbide, and Witco, have market shares of 18%, 20%, and 6% respectively. The remaining 1% of market share is for material produced outside North America and imported. Conoco has completed a 10 million pound expansion and consequently industry capacity is expected to exceed demand through the mid 1978's. Monsanto estimates that its manufacturing costs are near parity with Conoco, but at a slight disadvantage on raw material costs. Continued equalizing raw material pricing for paraffin/olefins and the difficulty in passing to the market place cause a decline in gross profit margins. A further pricing pressure is continuing European manufacturing SAG imports into Canada and Mexico.

0683097

STP - DETERGENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	77.7	108.8	106.3	114.4	121.8
Gross Profit	22.1	43.1	33.7	31.1	32.7
MAT	2.3	3.5	3.3	3.1	3.3
Performance Income	20.0	40.6	30.9	26.7	28.2
Net Income	10.8	22.4	16.6	14.1	14.0
Capital Employed	40.0	48.1	60.1	71.2	69.9
% ROC	27.0	46.6	27.6	19.8	20.0
As a % of Sales:					
Gross Profit	28.4	39.6	31.7	27.2	26.8
MAT	3.0	3.2	3.1	2.7	2.7
Performance Income	25.7	37.3	29.1	23.3	23.2
Net Income	13.9	20.6	15.6	12.3	11.5
U.S. and Export					
Sales	77.7	108.8	106.3	112.5	115.7
Gross Profit	22.1	43.1	33.7	31.8	33.7
MAT	2.3	3.5	3.3	3.0	3.2
Performance Income	20.0	40.6	30.7	27.6	29.5
Net Income	10.8	22.4	16.5	14.7	14.8
Capital Employed	40.0	48.1	60.1	64.5	63.7
% ROC	27.0	46.6	27.5	22.8	23.2
As a % of Sales:					
Gross Profit	28.4	39.6	31.7	28.3	29.1
MAT	3.0	3.2	3.1	2.7	2.8
Performance Income	25.7	37.3	28.9	24.5	25.5
Net Income	13.9	20.6	15.5	13.1	12.8
Ex-U.S.A.					
Sales	-	-	-	1.9	6.1
Gross Profit	-	-	-	(0.7)	(1.0)
MAT	-	-	-	0.1	0.1
Performance Income	-	-	0.2	(0.9)	(1.3)
Net Income	-	-	0.1	(0.6)	(0.8)
Capital Employed	-	-	-	6.7	6.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	5.3	1.6
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

Form 10-A

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683098

Augusta	190.0 million pounds	Long Beach	152.0 million pounds
Cerondelet	158.0 million pounds	Trenton	154.0 million pounds
Kearny	260.0 million pounds	Brazil	23.8 million pounds

STP - DETERGENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	3.2	3.4	3.8	5.5	7.0
Gross Property Additions	2.5	9.8	12.7	7.3	10.8
Gross Property Retirements	0.6	0.7	2.5	1.2	1.6
Fixed Capital	71.3	75.7	87.9	102.3	99.8
Working Capital	16.1	24.9	27.2	27.7	26.6
Gross Investment	87.4	100.6	115.1	130.0	126.4
Avg. Selling Price/Unit (Merchant)	.119	.187	.198	.213	.222
Avg. Cost/Unit	.082	.113	.135	.156	.178
Total Production - MM Units	695.0	597.6	538.0	542.5	511.8
Total Capacity - MM Units	974.8	1,014.0	1,014.0	931.8	937.8
Percent Utilization - %	71.3	58.9	53.1	57.8	54.6
Merchant Sales - MM Units	643.8	581.3	538.0	532.8	524.6
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	643.8	581.3	538.0	532.8	524.6
Market Share (MM) - %	-	-	-	-	-
U.S. & Export					
Depreciation	3.2	3.4	3.8	4.4	5.6
Gross Property Additions	2.5	9.8	11.7	7.3	10.8
Gross Property Retirements	0.6	0.7	2.5	1.2	1.6
Fixed Capital	71.3	75.7	87.9	95.8	93.8
Working Capital	16.1	24.9	27.2	26.7	25.0
Gross Investment	87.4	100.6	115.1	122.5	116.8
Avg. Selling Price/Unit (Merchant)	.119	.187	.198	.213	.228
Avg. Cost/Unit	.082	.113	.135	.153	.162
Total Production - MM Units	695.0	597.6	538.0	536.7	494.2
Total Capacity - MM Units	974.8	1,014.0	1,014.0	914.0	914.0
Percent Utilization - %	71.3	58.9	53.1	58.7	54.1
Merchant Sales - MM Units	643.8	581.3	538.0	527.6	507.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	643.8	581.3	538.0	527.6	507.0
Market Share (MM) - %	38	38	37	38	38
Exclusives					
Depreciation	-	-	-	0.9	1.4
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	6.5	6.0
Working Capital	-	-	-	1.6	1.6
Gross Investment	-	-	-	7.5	7.6
Avg. Selling Price/Unit (Merchant)	-	-	-	.365	.347
Avg. Cost/Unit	-	-	-	.500	.403
Total Production - MM Units	-	-	-	5.8	17.6
Total Capacity - MM Units	-	-	-	23.8	23.8
Percent Utilization - %	-	-	-	24.4	73.9
Merchant Sales - MM Units	-	-	-	5.2	17.6
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	5.2	17.6
Market Share (MM) - %	-	-	-	23	23

COMMENTS:

In 1977 and 1978 STP remains the dominant detergent builder in the U.S. market with 78% of a 2.0 Million pound market. Of the 1.4 billion pound STP market, Monsanto realized a 38% market share in 1977 while FMC is at 39% market share with the remaining market being shared by Dila and Hooker. Similar results are anticipated in the 1978 budget. In 1977 Monsanto lead price increases which were not fully supported in the market place. Monsanto revised its pricing to that supported by competition and was price competitive for all of 1977. Price competitiveness is assumed during 1978 as well. In late 1977 the state of Michigan imposed a ban on phosphates used in detergents. This ban is budgeted to continue in 1978. A further ban is forecasted in late 1978 (fourth quarter) based on anticipation of a Great Lakes Basin Limitation effective 1/1/79. Minor volume impact is anticipated in the fourth quarter of 1978 as detergent producers clear their "pipelines" of existing P₆ containing products for the 35-40% of the U.S. then so affected. In 1977 the division's Brazilian phosphate complex began marketing Brazilian produced detergent STP. In 1978 the budgeted sales volume for Brazilian produced STP is increased four fold over 1977 in an effort to utilize sales capacity. Currently, one main non-phosphate substitute, zeolite, is being developed by F&D which will eventually limit the average phosphates in the box to a 18 level. The budget does not include any 1978 losses of sales volume due to substitution. It is anticipated that full introduction of zeolites will not be accomplished until the early 1980's.

0683099

PHOSPHORIC ACID
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	30.8	33.0	42.2	46.0	56.9
Gross Profit	9.5	14.6	16.1	16.5	23.5
MAT	0.5	0.5	0.8	0.9	1.4
Performance Income	9.5	14.4	15.4	15.8	21.5
Net Income	5.2	8.0	8.4	8.4	10.8
Capital Employed	16.8	13.9	29.1	32.2	33.2
% ROC	31.0	57.6	28.9	26.1	32.5
As a % of Sales:					
Gross Profit	30.8	44.2	38.2	35.9	41.3
MAT	1.6	1.5	1.9	2.0	2.5
Performance Income	30.8	43.6	36.5	34.3	37.8
Net Income	16.9	24.2	19.9	18.3	19.0
U.S. and Export					
Sales	30.8	33.0	38.5	41.4	46.5
Gross Profit	9.5	14.6	15.5	15.3	19.5
MAT	0.5	0.5	0.7	0.7	1.2
Performance Income	9.5	14.4	15.1	15.0	18.0
Net Income	5.2	8.0	8.3	8.1	9.1
Capital Employed	16.8	13.9	22.4	25.8	27.1
% ROC	31.0	57.6	37.1	31.4	33.6
As a % of Sales:					
Gross Profit	30.8	44.2	40.3	37.0	41.9
MAT	1.6	1.5	1.8	1.7	2.6
Performance Income	30.8	43.6	39.2	36.2	38.7
Net Income	16.9	24.2	21.6	19.6	19.6
Ex-U.S.A.					
Sales	-	-	3.7	4.6	10.4
Gross Profit	-	-	0.6	1.2	4.0
MAT	-	-	0.1	0.2	0.2
Performance Income	-	-	0.3	0.8	3.5
Net Income	-	-	0.1	0.3	1.7
Capital Employed	-	-	6.7	6.4	6.1
% ROC	-	-	1.4	4.7	27.9
As a % of Sales:					
Gross Profit	-	-	16.2	26.1	38.5
MAT	-	-	2.7	4.3	1.9
Performance Income	-	-	8.1	17.4	33.7
Net Income	-	-	2.7	6.5	16.3

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683100

Augusta	168.3 million pounds	Long Beach	128.0 million pounds
Carondelet	160.3 million pounds	Trenton	468.8 million pounds
Kearny	150.0 million pounds	Brazil	45.3 million pounds

PHOSPHORIC ACID
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.9	1.1	1.8	2.4	3.3
Gross Property Additions	0.9	4.0	12.7	3.3	4.9
Gross Property Retirements	0.2	0.2	0.9	0.5	0.7
Fixed Capital	22.2	18.8	36.8	38.2	40.2
Working Capital	7.7	6.4	8.3	12.1	31.7
Gross Investment	29.9	25.2	45.1	50.3	51.9
Avg. Selling Price/Unit (Merchant)	.134	.134	.229	.287	.328
Avg. Cost/Unit	.096	.155	.164	.191	.188
Total Production - MM Units	726.7	616.0	598.8	537.6	599.3
Total Capacity - MM Units	1,078.6	1,078.6	1,165.4	1,188.7	1,188.7
Percent Utilization - %	67.4	57.1	51.4	45.2	50.4
Merchant Sales - MM Units	192.7	70.6	111.1	120.4	130.8
Intracompany Sales - MM Units	43.6	48.3	47.9	42.7	47.3
Total - MM Units	236.3	118.9	159.0	163.1	178.1
Market Share (Mill) - %	-	-	-	-	-
U.S. & Export					
Depreciation	0.9	1.1	1.3	1.8	2.3
Gross Property Additions	0.9	4.0	5.3	3.3	4.9
Gross Property Retirements	0.2	0.2	0.9	0.5	0.7
Fixed Capital	22.2	18.8	29.4	31.8	35.6
Working Capital	7.7	6.4	8.5	9.6	9.9
Gross Investment	29.9	25.2	37.9	43.4	44.7
Avg. Selling Price/Unit (Merchant)	.134	.134	.254	.267	.287
Avg. Cost/Unit	.096	.155	.168	.168	.168
Total Production - MM Units	726.7	616.0	582.9	523.5	581.7
Total Capacity - MM Units	1,078.6	1,078.6	1,097.4	1,075.4	1,075.4
Percent Utilization - %	67.4	57.1	53.1	48.7	54.1
Merchant Sales - MM Units	192.7	70.6	107.4	132.3	133.2
Intracompany Sales - MM Units	43.6	48.3	47.9	42.7	47.3
Total - MM Units	236.3	118.9	155.3	175.0	180.5
Market Share (Mill) - %	25	27	36	33	33
BRASILIA					
Depreciation	-	-	0.5	0.6	1.0
Gross Property Additions	-	-	7.4	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	7.4	4.4	4.4
Working Capital	-	-	(0.2)	2.5	2.8
Gross Investment	-	-	7.2	6.9	7.2
Avg. Selling Price/Unit (Merchant)	-	-	1.009	.568	.591
Avg. Cost/Unit	-	-	.638	.420	.364
Total Production - MM Units	-	-	15.9	14.1	17.6
Total Capacity - MM Units	-	-	68.6	68.0	68.0
Percent Utilization - %	-	-	23.4	20.7	25.9
Merchant Sales - MM Units	-	-	3.7	8.1	17.6
Intracompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	3.7	8.1	17.6
Market Share (Mill) - %	-	-	-	46	100

COMMENTS:

The major industrial uses for phosphoric acid are metal treating, chemical polishing and cleaning. The "Prime" acid market (not including agricultural uses) is 375 million pounds per year and Monsanto has an 87% of 33%. Competitors are IAC (21%), Mobil (18%), Stauffer (22%), and Hooker (7%). In future years, major segments of the "prime" acid market are subject to replacement by less costly unarsified wet acid. It is anticipated that substitution of wet acid will continue to the early 1980's with a resulting decrease of market available to Monsanto. It is contemplated that from the early 1980's the remaining market for "thermal" acid will then grow at 1% per year through 1987. The Brazilian Phosphate Complex generated performance income from the manufacturing and marketing of phosphoric acid in 1977 and is budgeted to improve total complex profit levels in 1978 by over \$2 million.

0683101

PHOSPHORUS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	26.2	40.2	38.4	36.1	61.4
Gross Profit	10.1	20.2	13.0	7.1	9.4
MAT	0.3	0.7	0.7	0.6	0.8
Performance Income	10.7	21.7	13.8	6.8	9.0
Net Income	6.2	12.7	8.2	3.9	4.7
Capital Employed	17.1	19.5	20.8	22.0	40.0
% ROC	36.3	65.1	39.4	17.7	11.8
As a % of Sales:					
Gross Profit	38.5	50.2	33.9	19.7	15.3
MAT	1.1	1.7	1.8	1.7	1.3
Performance Income	40.8	54.0	35.9	18.8	14.7
Net Income	23.7	31.6	21.4	10.8	7.7
U.S. and Export					
Sales	26.2	40.2	38.4	36.1	61.4
Gross Profit	10.1	20.2	13.0	7.1	9.4
MAT	0.3	0.7	0.7	0.6	0.8
Performance Income	10.7	21.7	13.8	6.8	9.0
Net Income	6.2	12.7	8.2	3.9	4.7
Capital Employed	17.1	19.5	20.8	22.0	40.0
% ROC	36.3	65.1	39.4	17.7	11.8
As a % of Sales:					
Gross Profit	38.5	50.2	33.9	19.7	15.3
MAT	1.1	1.7	1.8	1.7	1.3
Performance Income	40.8	54.0	35.9	18.8	14.7
Net Income	23.7	31.6	21.4	10.8	7.7
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Columbia 264.0 million pounds
Soda Springs 198.4 million pounds

0683102

PROSPERUS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	1.1	3.6	1.6	1.3	1.7
Gross Property Additions	1.2	3.8	7.6	2.1	4.1
Gross Property Retirements	0.1	0.2	1.2	0.4	0.5
Fixed Capital	20.7	18.8	23.4	25.4	47.0
Working Capital	8.3	10.2	9.4	8.6	15.0
Gross Investment	29.0	29.0	32.8	34.0	62.0
Avg. Selling Price/Unit (Merchant)	.281	.498	.522	.494	.569
Avg. Cost/Unit	.366	.230	.396	.363	.460
Total Production - MM Units	451.8	395.4	328.5	325.3	358.3
Total Capacity - MM Units	454.6	451.7	428.3	464.9	462.4
Percent Utilization - %	99.4	87.5	76.9	70.0	77.5
Merchant Sales - MM Units	66.2	57.2	27.2	23.5	65.0
Intercompany Sales - MM Units	30.7	29.7	37.0	35.7	48.2
Total - MM Units	96.9	86.9	64.2	59.2	113.2
Market Share (MI) - %	-	-	-	-	-
U.S. & Export					
Depreciation	1.1	3.6	1.6	1.3	1.7
Gross Property Additions	1.2	3.8	7.6	2.1	4.1
Gross Property Retirements	0.2	0.2	1.2	0.4	0.5
Fixed Capital	20.7	18.8	23.4	25.4	47.0
Working Capital	8.3	10.2	9.4	8.6	15.0
Gross Investment	29.0	29.0	32.8	34.0	62.0
Avg. Selling Price/Unit (Merchant)	.281	.498	.522	.494	.569
Avg. Cost/Unit	.366	.230	.396	.363	.460
Total Production - MM Units	451.8	395.4	328.5	325.3	358.3
Total Capacity - MM Units	454.6	451.7	428.3	464.9	462.4
Percent Utilization - %	99.4	87.5	76.9	70.0	77.5
Merchant Sales - MM Units	66.2	57.2	27.2	23.5	65.0
Intercompany Sales - MM Units	30.7	29.7	37.0	35.7	48.2
Total - MM Units	96.9	86.9	64.2	59.2	113.2
Market Share (MI) - %	43	43	38	40	48
Excluded					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MI) - %	-	-	-	-	-

COMMENTS:

Demand for U.S. produced phosphorus is currently at 850 million pounds per year including 90 million pounds per year being produced either as phosphorus or its derivatives. Monsanto competitors for elemental phosphorus are FMC, Stauffer, Hooker, Electric, and Mobil. Olin is effectively a competitor through effectively producing phosphates via the wet acid process. Of the industrial capacity, Monsanto has 401 while Monsanto's primary competitor, FMC, has 258. In 1977 Monsanto's phosphorus producing plants (the Springs and Columbia) operated at approximately a combined rate of 75%. To increase the overall manufacturing rate to meet capacity levels of 600 million pounds, the DSP Division is actively engaging in a program to enter major long term contracts for supplying phosphorus to less efficient U.S. phosphorus producers for their end product requirements. The 1978 budget includes an increase of 18 combined phosphorus production as a result of budgeting agreements with the targeted long term contracts. Manufacturing costs of the two plants continue to significantly escalate due to energy and energy related raw materials price increases. Both in 1977 and 1978 significant new capital expenditures have been made/budgeted for environmental considerations. In 1977 capital was expended at Columbia for water impoundment facility improvements. The improvements should allow for the Columbia plant operations more in line with Tennessee ozone reserves. In 1978 phosphorus budgeted to be produced for the Springs phosphorus complex is almost triple that consumed in 1977.

0683103

DETERGENTS & PHOSPHATES DIVISION
Minor Products/Eliminations

AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	114.9	122.4	114.8
Gross Profit	33.1	32.4	31.5
MAT	3.7	3.8	4.5
Performance Income	28.6	26.8	26.7
Net Income	15.1	14.0	13.5
Capital Employed	64.4	72.3	71.5
% PROC	23.4	19.4	18.9
Fixed Capital	81.5	90.5	88.6
Working Capital	29.1	35.4	33.2
U.S. & Export			
Sales	109.5	115.3	106.7
Gross Profit	31.3	29.9	28.9
MAT	2.7	3.1	3.7
Performance Income	27.7	25.0	24.8
Net Income	14.7	13.0	12.6
Capital Employed	55.3	67.8	62.2
% PROC	26.6	19.2	20.3
Fixed Capital	78.6	86.6	83.5
Working Capital	21.1	32.7	27.0
Ex-U.S.A.			
Sales	5.4	7.1	8.1
Gross Profit	1.8	2.5	2.6
MAT	1.0	0.7	0.8
Performance Income	0.9	1.8	1.9
Net Income	0.4	1.0	0.9
Capital Employed	9.1	4.5	9.3
% PROC	4.4	22.2	9.7
Fixed Capital	2.9	3.9	5.1
Working Capital	8.0	2.7	6.2

Form IV

0683104

RUBBER CHEMICALS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	170.9	173.4	200.4	231.1	250.2
Gross Profit	57.4	52.7	69.3	80.8	85.4
MAT	11.2	13.8	15.2	17.8	20.3
Performance Income	43.8	36.3	51.6	59.1	60.6
Net Income	22.6	18.7	26.6	30.4	29.3
Capital Employed	96.6	99.8	120.4	143.0	154.0
% ROC	23.4	18.7	22.1	21.3	19.0
As a % of Sales:					
Gross Profit	33.6	30.4	34.6	35.0	34.1
MAT	6.6	8.0	7.6	7.7	8.1
Performance Income	25.6	20.9	25.7	25.6	24.2
Net Income	13.2	10.8	13.3	13.2	11.7
<u>U.S. and Export</u>					
Sales	89.4	87.2	101.2	116.5	120.9
Gross Profit	31.1	26.9	32.5	37.2	37.3
MAT	6.5	7.5	8.3	8.7	10.2
Performance Income	24.5	19.7	25.1	29.0	27.4
Net Income	12.8	10.4	13.2	15.2	14.1
Capital Employed	49.9	51.2	56.3	68.8	71.7
% ROC	25.7	20.3	23.4	22.1	19.7
As a % of Sales:					
Gross Profit	34.8	30.8	32.1	31.9	30.9
MAT	7.3	8.6	8.2	7.5	8.4
Performance Income	27.4	22.6	24.8	24.9	22.7
Net Income	14.3	11.9	13.0	13.0	11.7
<u>Ex-U.S.A.</u>					
Sales	81.5	86.2	99.2	114.6	129.3
Gross Profit	26.3	25.8	36.8	43.6	48.1
MAT	4.7	6.3	6.9	9.1	10.1
Performance Income	19.3	16.6	26.5	30.1	33.2
Net Income	9.8	8.3	13.4	15.2	15.2
Capital Employed	46.7	48.6	64.1	74.2	82.3
% ROC	21.0	17.1	20.9	20.5	18.5
As a % of Sales:					
Gross Profit	32.3	29.9	37.1	38.0	37.2
MAT	5.8	7.3	7.0	7.9	7.8
Performance Income	23.7	19.3	26.7	26.3	25.7
Net Income	12.0	9.6	13.5	13.3	11.8

0683105

RUBBER CHEMICALS DIVISION
 AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	5.3	5.4	5.5	6.0	6.9
Gross Property Additions	3.1	10.6	16.5	13.7	7.3
Gross Property Retirements	-	-	0.9	1.3	0.4
Fixed Capital	94.5	98.4	111.9	123.9	140.6
Working Capital	59.7	58.3	70.8	86.9	92.9
Gross Investment	154.2	156.7	182.7	210.8	233.5
U.S. & Export					
Depreciation	3.1	3.2	3.5	3.9	4.2
Gross Property Additions	1.4	4.8	7.0	11.0	5.9
Gross Property Retirements	0.7	1.1	0.9	1.3	0.4
Fixed Capital	52.4	53.8	58.3	65.9	72.3
Working Capital	33.1	31.2	34.9	42.1	41.8
Gross Investment	85.5	85.0	93.2	108.0	114.1
Ex-U.S.A.					
Depreciation	2.2	2.2	2.0	2.1	2.7
Gross Property Additions	1.7	5.8	9.5	2.7	1.4
Gross Property Retirements	-	-	-	-	-
Fixed Capital	42.1	44.6	53.6	58.0	68.3
Working Capital	26.6	27.1	35.9	44.8	51.1
Gross Investment	68.7	71.7	89.5	102.8	119.4

COMMENTS:

The Rubber Chemicals Division serves the rubber and tire industries world-wide with a selected line of chemical products, instruments and equipment to improve process economics, quality, safety and performance of tires and industrial rubber products. No other supplier to this market offers a product line as broad as ours. We have about 40% of the worldwide merchant market and our largest competitor has about 20%. The remaining suppliers each have less than 7%. Sales of chemicals products are tied closely to rubber consumption. Worldwide rubber consumption has grown at 5-6% per year historically and is projected to grow at 3-4% per year through 1987. We have a large share of the worldwide merchant sales to the tire market, but only a 12% share of the industrial rubber products (IRP) market. We plan to accelerate efforts toward the faster growing IRP market. Equipment sales are a function of the rubber industry's level of capital expenditures which were down in 1975 and 1976 but have been increasing in 1977 and 1978.

0683106

SANTOFLEX 13
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	37.0	33.4	35.5	45.5	49.3
Gross Profit	10.6	8.3	10.0	13.0	13.4
MAT	1.0	1.3	1.5	2.1	2.3
Performance Income	8.5	5.9	7.7	10.4	10.4
Net Income	4.4	2.9	3.9	5.4	5.0
Capital Employed	15.0	17.9	20.5	22.8	27.7
% ROC	29.3	16.2	19.0	23.7	18.1
As a % of Sales:					
Gross Profit	28.6	24.9	28.2	28.6	27.2
MAT	2.7	3.9	4.2	4.6	4.7
Performance Income	23.0	17.7	21.7	22.9	21.1
Net Income	11.9	8.7	11.0	11.9	10.1
U.S. and Export					
Sales	18.0	16.8	18.1	22.5	22.1
Gross Profit	5.6	4.6	5.1	7.1	6.5
MAT	0.4	0.5	0.7	0.6	0.7
Performance Income	4.8	3.6	4.0	6.1	5.3
Net Income	2.5	1.8	2.1	3.2	2.6
Capital Employed	7.8	9.1	8.7	8.1	9.3
% ROC	32.1	19.8	24.1	39.5	28.0
As a % of Sales:					
Gross Profit	31.1	27.4	28.2	31.6	29.4
MAT	2.2	3.0	3.9	2.7	3.2
Performance Income	26.7	21.4	22.1	27.1	24.0
Net Income	13.9	10.7	11.6	14.2	11.8
Ex-U.S.A.					
Sales	19.0	16.6	17.4	23.0	27.2
Gross Profit	5.0	3.7	4.9	5.9	6.9
MAT	0.6	0.8	0.8	1.5	1.6
Performance Income	3.7	2.3	3.7	4.3	5.1
Net Income	1.9	1.1	1.8	2.2	2.4
Capital Employed	7.2	8.8	11.8	14.7	18.4
% ROC	26.4	12.5	15.3	15.0	13.0
As a % of Sales:					
Gross Profit	26.3	22.3	28.2	25.7	25.4
MAT	3.2	4.8	4.6	6.5	5.9
Performance Income	19.5	13.9	21.3	18.7	18.8
Net Income	10.0	6.6	10.3	9.6	8.8

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683107

Antwerp	23.5 million pounds	LaSalle	5.4 million pounds
Brazil	5.0 million pounds	West Footscray	2.6 million pounds
Krummrich	21.6 million pounds		

SANTOFLEX 13
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	1.1	1.2	1.6	1.7	2.3
Gross Property Additions	-	-	4.4	2.1	3.1
Gross Property Retirements	-	-	0.2	-	-
Fixed Capital	17.5	21.1	24.2	27.8	30.0
Working Capital	7.3	9.3	9.1	9.7	13.7
Gross Investment	24.8	30.4	33.2	37.5	43.7
Avg. Selling Price/Unit (Merchant)	1.182	1.459	1.467	1.497	1.773
Avg. Cost/Unit	.888	1.140	1.054	1.069	1.293
Total Production - MM Units	27.9	20.3	24.9	30.1	28.6
Total Capacity - MM Units	44.6	44.6	53.3	57.8	58.1
Percent Utilization - %	62.6	45.5	46.7	52.1	49.2
Merchant Sales - MM Units	31.3	22.9	24.2	30.4	27.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	31.3	22.9	24.2	30.4	27.8
*Market Share (MM) - %	65-70	65-70	65-70	65-70	65-70
U.S. & Export					
Depreciation	0.7	0.7	0.8	0.7	0.6
Gross Property Additions	0.6	1.1	0.5	0.8	1.7
Gross Property Retirements	-	0.2	0.2	-	-
Fixed Capital	10.3	12.8	12.8	12.0	13.7
Working Capital	4.0	4.5	3.9	4.5	6.4
Gross Investment	14.3	17.3	16.7	16.5	18.1
Avg. Selling Price/Unit (Merchant)	.969	1.333	1.356	1.471	1.567
Avg. Cost/Unit	.758	1.071	.973	1.007	1.106
Total Production - MM Units	20.0	13.2	13.8	16.2	15.0
Total Capacity - MM Units	21.6	21.6	21.6	21.6	21.6
Percent Utilization - %	92.6	61.1	63.9	75.0	69.4
Merchant Sales - MM Units	18.2	12.6	13.4	15.3	14.1
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	18.2	12.6	13.4	15.3	14.1
*Market Share (MM) - %	65-70	65-70	65-70	65-70	65-70
Ex-U.S.A.					
Depreciation	0.4	0.5	0.8	1.0	1.7
Gross Property Additions	-	-	3.9	1.3	1.4
Gross Property Retirements	-	-	-	-	-
Fixed Capital	7.3	8.3	11.3	15.8	18.3
Working Capital	3.3	4.8	5.2	5.2	7.3
Gross Investment	10.5	13.1	16.5	21.0	25.6
Avg. Selling Price/Unit (Merchant)	1.450	1.612	1.611	1.523	1.985
Avg. Cost/Unit	1.069	1.252	1.157	1.132	1.482
Total Production - MM Units	7.9	7.1	11.1	13.9	13.6
Total Capacity - MM Units	23.0	23.0	31.7	36.2	36.5
Percent Utilization - %	34.3	30.9	35.0	38.4	37.3
Merchant Sales - MM Units	13.1	10.3	10.8	15.1	13.7
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	13.1	10.3	10.8	15.1	13.7
*Market Share (MM) - %	65-70	65-70	65-70	65-70	65-70

COMMENTS:

Santoflex 13 is the major PPD (para-phenylenediamine) type of antidegradant used by the tire and industrial rubber products industries. In the tire industry, PPD's account for about 95% of the antidegradants used to protect tires against heat degradation, oxygen and ozone attack. We have a strong position in marketing, technology, and manufacturing capability.

*Market share does not include sub-usable items.

0663108

SANTOCURE NS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	17.4	18.1	22.9	28.5	26.8
Gross Profit	5.6	6.3	7.9	10.8	8.7
MAT	0.9	0.9	1.6	1.2	1.6
Performance Income	4.7	5.5	6.5	10.2	7.7
Net Income	2.4	2.9	3.4	5.4	3.8
Capital Employed	12.0	11.9	13.0	19.1	16.8
% ROC	20.0	24.4	26.2	28.3	22.6
As a % of Sales:					
Gross Profit	32.2	34.8	34.5	37.9	32.5
MAT	5.2	5.0	7.0	4.2	6.0
Performance Income	27.0	30.4	28.4	35.8	28.7
Net Income	13.8	16.0	14.8	18.9	14.2
U.S. and Export					
Sales	17.4	18.1	22.9	28.5	26.8
Gross Profit	5.6	6.3	7.9	10.8	8.7
MAT	0.9	0.9	1.6	1.2	1.6
Performance Income	4.7	5.5	6.5	10.2	7.7
Net Income	2.4	2.9	3.4	5.4	3.8
Capital Employed	12.0	11.9	13.0	19.1	16.8
% ROC	20.0	24.4	26.2	28.3	22.6
As a % of Sales:					
Gross Profit	32.2	34.8	34.5	37.9	32.5
MAT	5.2	5.0	7.0	4.2	6.0
Performance Income	27.0	30.4	28.4	35.8	28.7
Net Income	13.8	16.0	14.8	18.9	14.2
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Nitro 36.0 million pounds

0663109

SANTOCURE NS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.9	0.8	0.8	1.2	1.2
Gross Property Additions	0.4	1.0	2.3	4.2	1.4
Gross Property Retirements	0.2	0.2	0.2	0.2	0.1
Fixed Capital	14.8	14.6	16.1	20.3	18.5
Working Capital	6.0	5.7	6.2	10.0	9.5
Gross Investment	20.9	20.3	22.3	30.3	28.0
Avg. Selling Price Unit (Merchant)	.680	.896	.958	.990	1.051
Avg. Cost Unit	.461	.589	.630	.615	.710
Total Production - MM Units	27.8	21.6	25.3	30.1	25.6
Total Capacity - MM Units	34.8	36.0	36.0	36.0	36.0
Percent Utilization - %	79.9	60.0	70.3	83.6	71.1
Merchant Sales - MM Units	25.6	20.2	23.9	28.8	25.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	25.6	20.2	23.9	28.8	25.5
*Market Share (Mkt) - %	85-90	85-90	85-90	85-90	85-90
U.S. & Export					
Depreciation	0.9	0.8	0.8	1.2	1.2
Gross Property Additions	0.4	1.0	2.3	4.2	1.4
Gross Property Retirements	0.2	0.2	0.2	0.2	0.1
Fixed Capital	14.8	14.6	16.1	20.3	18.5
Working Capital	6.0	5.7	6.2	10.0	9.5
Gross Investment	20.9	20.3	22.3	30.3	28.0
Avg. Selling Price Unit (Merchant)	.680	.896	.958	.990	1.051
Avg. Cost Unit	.461	.589	.630	.615	.710
Total Production - MM Units	27.8	21.6	25.3	30.1	25.6
Total Capacity - MM Units	34.8	36.0	36.0	36.0	36.0
Percent Utilization - %	79.9	60.0	70.3	83.6	71.1
Merchant Sales - MM Units	25.6	20.2	23.9	28.8	25.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	25.6	20.2	23.9	28.8	25.5
*Market Share (Mkt) - %	85-90	85-90	85-90	85-90	85-90
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mkt) - %	-	-	-	-	-

COMMENTS:

Santocure NS is a sulfonamide-type accelerator based on tertiarybutylamine (TBA). It is the largest volume accelerator used in the worldwide rubber industry except for Europe where the major accelerator is Santocure NDR, a morpholine-based accelerator.

*Market share does not include substitutable products

0683110

PVI

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	9.3	10.3	13.4	18.5	19.7
Gross Profit	4.3	4.7	6.1	9.0	9.1
MAT	0.9	1.2	1.0	1.2	1.2
Performance Income	3.9	4.2	5.8	7.8	8.0
Net Income	2.2	2.3	3.1	4.0	3.9
Capital Employed	6.4	6.3	10.8	12.5	12.2
% ROC	34.4	36.5	28.7	32.0	32.0
As a % of Sales:					
Gross Profit	46.2	45.6	45.5	48.6	46.2
MAT	9.7	11.7	7.5	6.5	6.1
Performance Income	41.9	40.8	43.3	42.2	40.6
Net Income	23.7	22.3	23.1	21.6	19.8
U.S. and Export					
Sales	9.3	10.3	11.6	8.8	9.8
Gross Profit	4.3	4.7	5.6	3.2	4.0
MAT	0.9	1.2	0.9	0.7	0.7
Performance Income	3.9	4.2	5.4	2.8	3.7
Net Income	2.2	2.3	2.9	1.4	1.8
Capital Employed	6.4	6.3	6.5	5.9	6.2
% ROC	34.4	36.5	44.6	23.7	29.0
As a % of Sales:					
Gross Profit	46.2	45.6	48.3	36.4	40.8
MAT	9.7	11.7	7.8	8.0	7.1
Performance Income	41.9	40.8	46.6	31.8	37.8
Net Income	23.7	22.3	25.0	15.9	18.4
Ex-U.S.A.					
Sales	-	-	1.8	9.7	9.9
Gross Profit	-	-	0.5	5.8	5.1
MAT	-	-	0.1	0.5	0.5
Performance Income	-	-	0.4	5.0	4.3
Net Income	-	-	0.2	2.6	2.1
Capital Employed	-	-	4.3	6.6	6.0
% ROC	-	-	4.7	39.4	35.0
As a % of Sales:					
Gross Profit	-	-	27.8	59.8	51.5
MAT	-	-	5.6	5.2	5.1
Performance Income	-	-	22.2	51.5	43.4
Net Income	-	-	11.1	26.8	21.2

Form III A

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Nitro 5.4 million pounds
Rusabon 3.6 million pounds

0683111

PVT AMOUNTS IN MILLIONS					
	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.4	0.4	0.6	1.4	1.5
Gross Property Additions	0.9	0.4	3.7	1.9	0.5
Gross Property Retirements	-	0.2	-	0.1	0.1
Fixed Capital	5.3	5.7	10.4	11.6	12.0
Working Capital	3.8	3.7	4.4	5.7	6.4
Gross Investment	9.1	9.4	14.8	17.3	18.6
Avg. Selling Price/Unit (Merchant)	2,163	2,452	2,435	2,761	2,897
Avg. Cost/Unit	1,163	1,333	1,327	1,419	1,559
Total Production - MM Units	4.5	3.9	5.5	7.0	6.9
Total Capacity - MM Units	5.7	5.8	8.8	9.9	9.0
Percent Utilization - %	78.9	67.2	62.5	77.4	76.7
Merchant Sales - MM Units	4.3	4.2	5.3	6.7	6.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	4.3	4.2	5.3	6.7	6.8
Market Share (MM) - %	100	100	100	100	100
U.S. & Export					
Depreciation	0.4	0.4	0.5	0.5	0.6
Gross Property Additions	0.9	0.4	0.7	0.9	0.5
Gross Property Retirements	-	0.2	-	0.1	0.1
Fixed Capital	5.3	5.7	6.0	6.2	6.6
Working Capital	3.8	3.7	4.0	3.2	3.8
Gross Investment	9.1	9.4	10.0	9.4	10.4
Avg. Selling Price/Unit (Merchant)	2,163	2,452	2,435	2,514	2,722
Avg. Cost/Unit	1,163	1,333	1,265	1,490	1,611
Total Production - MM Units	4.5	3.9	4.6	3.7	3.6
Total Capacity - MM Units	5.7	5.8	5.8	5.4	5.4
Percent Utilization - %	78.9	67.2	79.3	68.5	66.7
Merchant Sales - MM Units	4.3	4.2	4.7	3.5	3.6
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	4.3	4.2	4.7	3.5	3.6
Market Share (MM) - %	100	100	100	100	100
Ex-U.S.A.					
Depreciation	-	-	0.1	0.9	0.9
Gross Property Additions	-	-	3.0	1.0	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	4.4	5.4	5.4
Working Capital	-	-	0.4	1.5	1.8
Gross Investment	-	-	4.8	7.9	8.2
Avg. Selling Price/Unit (Merchant)	-	-	2,250	3,031	3,094
Avg. Cost/Unit	-	-	1,625	1,219	1,500
Total Production - MM Units	-	-	0.9	3.3	3.3
Total Capacity - MM Units	-	-	3.0	3.6	3.6
Percent Utilization - %	-	-	30.0	91.7	91.7
Merchant Sales - MM Units	-	-	0.9	3.2	3.2
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	0.9	3.2	3.2
Market Share (MM) - %	-	-	-	100	100

COMMENTS:

Santogard PVI was introduced by Monakinto in 1969. PVI, used in both synthetic and natural rubber, controls the vulcanization process which results in reduced energy consumption and lower stock wastes. A new plant at Rusbon, U. K. was started up in 1976 and is now being expanded to supply the rapidly growing European market for PVI. No commercially available product has yet been developed which will compete with PVI on a cost/performance basis.

0683112

INSTRUMENTS & EQUIPMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	13.3	9.5	12.5	15.3	19.6
Gross Profit	4.5	3.1	4.6	5.9	8.2
MAT	2.6	2.5	2.6	3.3	3.7
Performance Income	2.9	0.1	1.5	2.1	3.9
Net Income	1.5	0.1	0.8	1.0	1.8
Capital Employed	10.8	6.9	8.8	11.0	11.1
% ROC	13.9	1.4	9.1	9.1	16.2
As a % of Sales:					
Gross Profit	33.8	32.6	36.8	38.6	41.8
MAT	15.0	26.3	20.8	21.6	18.9
Performance Income	21.8	1.1	12.0	13.7	19.9
Net Income	11.3	1.1	6.4	6.5	9.2
<u>U.S. and Export</u>					
Sales	9.4	6.5	8.0	10.2	12.6
Gross Profit	3.1	1.9	2.5	3.1	4.7
MAT	1.5	1.7	1.8	2.1	2.3
Performance Income	2.1	(0.2)	0.4	0.7	2.0
Net Income	1.1	(0.1)	0.3	0.3	0.9
Capital Employed	5.8	4.8	5.9	7.7	7.4
% ROC	19.0	-	5.1	3.9	12.2
As a % of Sales:					
Gross Profit	33.0	29.2	31.3	30.4	37.3
MAT	16.0	26.2	22.5	20.6	18.3
Performance Income	22.3	-	5.0	6.9	15.9
Net Income	11.7	-	3.8	2.9	7.1
<u>Ex-U.S.A.</u>					
Sales	3.9	3.0	4.5	5.1	7.0
Gross Profit	1.4	1.2	2.1	2.8	3.5
MAT	0.5	0.8	0.8	1.2	1.4
Performance Income	0.8	0.3	1.1	1.4	1.9
Net Income	0.4	0.2	0.5	0.7	0.9
Capital Employed	5.0	2.1	2.9	3.3	3.7
% ROC	8.0	9.5	17.2	21.2	24.3
As a % of Sales:					
Gross Profit	35.9	40.0	46.7	54.9	50.0
MAT	12.8	26.7	17.8	23.5	20.0
Performance Income	20.5	10.0	24.4	27.5	27.1
Net Income	10.3	6.7	11.1	13.7	12.9

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INSTRUMENTS & EQUIPMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.4	0.1	0.3	0.3
Gross Property Additions	-	-	0.3	0.7	0.5
Gross Property Retirements	-	-	0.1	0.6	-
Fixed Capital	3.1	3.1	3.5	3.5	4.6
Working Capital	5.9	5.1	6.8	8.9	8.3
Gross Investment	9.0	8.2	10.3	12.4	12.9
U.S. & Export					
Depreciation	0.1	0.1	-	0.3	0.2
Gross Property Additions	0.4	0.1	0.3	0.3	0.5
Gross Property Retirements	-	0.1	0.1	0.6	-
Fixed Capital	2.4	2.3	2.7	2.5	3.2
Working Capital	4.8	3.6	4.5	6.4	5.8
Gross Investment	7.2	5.9	7.2	8.9	9.0
Ex-U.S.A.					
Depreciation	0.1	0.3	0.1	-	0.1
Gross Property Additions	-	-	-	0.4	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	0.7	0.8	0.8	1.0	1.4
Working Capital	1.1	1.5	2.3	2.5	2.5
Gross Investment	1.8	2.3	3.1	3.5	3.9

COMMENTS:

These products serve the rubber industry with testing instruments for control of processes in both the laboratory and production, with equipment for rubber fabrication that requires a high degree of technology, and with equipment for nondestructive tire testing. We do not supply the commodity or "heavy" rubber processing equipment such as mixers, mills, etc. Competition in this business comes from many suppliers, none of whom have a major position as rubber industry suppliers or supply the industry with anything but hardware. The trend of improved income from year-to-year is expected to continue through 1978 as the rubber industry increases capital expenditures for equipment replacements and modifications.

0683114

RUBBER CHEMICALS DIVISION
Minor Products/Eliminations

AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	116.1	123.3	134.8
Gross Profit	40.7	42.1	46.0
MAT	8.5	10.0	11.5
Performance Income	30.1	28.6	30.6
Net Income	15.4	14.6	14.8
Capital Employed	67.3	77.6	86.2
% PROC	22.9	18.8	17.2
Fixed Capital	57.8	60.7	75.5
Working Capital	44.3	52.6	54.8
U.S. & Export			
Sales	40.6	46.5	49.6
Gross Profit	11.4	13.0	13.4
MAT	3.3	4.1	4.9
Performance Income	8.8	9.2	8.7
Net Income	4.5	4.9	5.0
Capital Employed	22.2	28.0	32.0
% PROC	20.3	17.5	15.6
Fixed Capital	20.7	24.9	32.3
Working Capital	16.3	18.0	16.3
Ex-U.S.A.			
Sales	75.5	76.8	85.2
Gross Profit	29.3	29.1	32.6
MAT	5.2	5.9	6.6
Performance Income	21.3	19.4	21.9
Net Income	10.9	9.7	9.8
Capital Employed	45.1	49.6	54.2
% PROC	24.2	19.6	18.1
Fixed Capital	37.1	35.8	43.2
Working Capital	28.0	34.6	38.5

Form IV

0683115

SPECIALTY CHEMICALS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	215.7	224.8	259.2	298.8	313.4
Gross Profit	66.4	64.7	74.6	82.4	83.2
MAT	16.0	18.6	19.8	23.0	23.4
Performance Income	46.2	41.8	50.5	53.9	54.1
Net Income	23.6	21.4	25.3	27.0	25.4
Capital Employed	112.2	128.5	167.1	194.3	214.6
% ROC	21.0	16.7	15.4	13.9	11.8
As a % of Sales:					
Gross Profit	30.8	28.8	28.8	27.6	26.5
MAT	7.4	8.3	7.6	7.7	7.5
Performance Income	21.4	18.6	19.5	18.0	17.3
Net Income	10.9	9.5	10.0	9.0	8.1
<u>U.S. and Export</u>					
Sales	191.8	199.7	232.2	262.9	273.3
Gross Profit	59.9	59.0	68.5	73.4	72.4
MAT	14.0	16.0	17.2	20.1	20.5
Performance Income	42.3	39.4	47.7	48.9	47.2
Net Income	21.7	20.3	24.6	24.7	22.2
Capital Employed	102.4	113.8	145.3	163.6	188.0
% ROC	21.2	17.8	16.9	15.1	11.8
As a % of Sales:					
Gross Profit	31.2	29.5	29.5	27.9	26.5
MAT	7.3	8.0	7.4	7.6	7.5
Performance Income	22.1	19.7	20.5	18.6	17.3
Net Income	11.3	10.2	10.6	9.4	8.1
<u>Ex-U.S.A.</u>					
Sales	23.9	25.1	27.0	35.9	40.1
Gross Profit	6.5	5.7	6.1	9.0	10.8
MAT	2.0	2.6	2.6	2.9	2.9
Performance Income	3.9	2.4	2.8	5.0	6.9
Net Income	1.9	1.1	1.2	2.3	3.2
Capital Employed	9.8	14.7	21.8	30.7	26.6
% ROC	19.4	7.5	5.5	7.5	12.0
As a % of Sales:					
Gross Profit	27.2	22.7	22.6	25.1	26.9
MAT	8.4	10.4	9.6	8.1	7.2
Performance Income	16.3	9.6	10.4	13.9	17.2
Net Income	7.9	4.4	4.4	6.4	8.0

0683116

SPECIALTY CHEMICALS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	6.0	5.9	6.0	10.5	13.9
Gross Property Additions	4.1	21.8	46.1	29.7	18.1
Gross Property Retirements	-	-	1.7	4.4	2.5
Fixed Capital	132.4	148.2	172.6	190.4	206.4
Working Capital	60.9	63.0	80.1	93.9	104.3
Gross Investment	193.3	211.2	252.7	284.3	310.7
U.S. & Export					
Depreciation	5.6	5.5	5.5	8.5	11.1
Gross Property Additions	3.3	17.3	33.9	29.0	16.0
Gross Property Retirements	4.5	1.0	1.6	4.2	1.7
Fixed Capital	119.1	132.7	144.7	165.8	179.9
Working Capital	55.4	55.2	76.2	79.8	91.4
Gross Investment	174.5	187.9	220.9	245.6	271.3
Ex-U.S.A.					
Depreciation	0.4	0.4	0.5	2.0	2.8
Gross Property Additions	0.8	4.5	12.2	0.7	2.1
Gross Property Retirements	-	-	0.1	0.2	0.8
Fixed Capital	13.3	15.5	27.9	24.6	26.5
Working Capital	5.5	7.8	3.9	14.1	12.9
Gross Investment	18.8	23.3	31.8	38.7	39.4

COMMENTS:

1977 sales increased 15% over 1976 with P.I. up 7%. 1977 P.I. was depressed by Sorbates, -\$10.7 million. Although 1978 sales are up 5%, P.I. is essentially flat. Year-to-year gains are offset by the impact of the Dielectric and U.S. Silica phase out in 1977, P.I. delta of \$7.2 million. Prime management attention in 1978-79 will be on business planning and profit achievement to reach return on replacement capital criteria of 20% PIORC.

0683117

ASPIRIN

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	17.8	19.4	21.1	23.4	24.6
Gross Profit	5.7	6.9	7.4	8.2	7.9
MAT	0.7	0.6	0.7	0.8	0.8
Performance Income	4.8	5.9	6.4	7.3	6.6
Net Income	2.5	3.0	3.3	3.8	3.3
Capital Employed	9.5	9.2	10.0	12.0	13.8
% ROC	26.3	32.6	33.0	31.7	23.9
As a % of Sales:					
Gross Profit	32.0	35.6	35.1	35.0	32.1
MAT	3.9	3.1	3.3	3.4	3.3
Performance Income	27.0	30.4	30.3	31.2	26.8
Net Income	14.0	15.5	15.6	16.2	13.4
U.S. and Export					
Sales	10.4	13.5	13.5	15.0	14.4
Gross Profit	3.3	5.4	5.0	5.5	4.3
MAT	0.4	0.4	0.3	0.2	0.2
Performance Income	2.9	4.8	4.5	5.3	3.8
Net Income	1.5	2.5	2.3	2.8	1.9
Capital Employed	6.4	6.6	6.5	7.2	8.0
% ROC	23.4	37.9	35.4	38.9	23.8
As a % of Sales:					
Gross Profit	31.7	40.0	37.0	36.7	29.9
MAT	3.8	3.0	2.2	1.3	1.4
Performance Income	27.9	35.6	33.3	35.3	26.4
Net Income	14.4	18.5	17.0	18.7	13.2
Ex-U.S.A.					
Sales	7.4	5.9	7.6	8.4	10.2
Gross Profit	2.4	1.5	2.4	2.7	3.6
MAT	0.3	0.2	0.4	0.6	0.6
Performance Income	1.9	1.1	1.9	2.0	2.8
Net Income	1.0	0.5	1.0	1.0	1.4
Capital Employed	3.1	2.6	3.5	4.8	5.8
% ROC	32.3	19.2	28.6	20.8	24.1
As a % of Sales:					
Gross Profit	32.4	25.4	31.6	32.1	35.3
MAT	4.1	3.4	5.3	7.1	5.9
Performance Income	25.7	18.6	25.0	23.8	27.5
Net Income	13.5	8.5	13.2	11.9	13.7

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

J. F. Queeny 19.6 million pounds
 Ruabon 11.4 million pounds
 West Footscray 2.0 million pounds

0682118

ASPIRIN
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.5	0.5	0.6	0.6	1.1
Gross Property Additions	0.4	0.9	1.1	5.7	1.1
Gross Property Retirements	0.1	-	0.1	0.1	0.1
Fixed Capital	18.6	15.3	15.1	18.4	7.5
Working Capital	5.3	4.7	5.3	6.2	7.2
Gross Investment	19.9	20.4	20.4	22.6	24.7
Avg. Selling Price/Unit (Merchant)	.709	.920	.987	1.026	1.119
Avg. Cost/Unit	.484	.598	.643	.687	.770
Total Production - MM Units	25.3	19.1	20.2	22.7	21.3
Total Capacity - MM Units	33.1	33.1	32.3	32.8	33.0
Percent Utilization - %	76.4	57.7	62.5	69.2	64.5
Merchant Sales - MM Units	25.0	20.9	21.3	22.8	21.6
Intercompany Sales - MM Units	-	-	-	-	0.1
Total - MM Units	25.0	20.9	21.3	22.8	22.7
Market Share (MM) - %	32	32	32	30	30
U.S. & Export					
Depreciation	0.5	0.5	0.5	0.5	0.9
Gross Property Additions	0.4	0.9	1.1	5.3	0.3
Gross Property Retirements	0.1	-	0.1	-	-
Fixed Capital	18.7	11.5	10.5	11.3	11.8
Working Capital	3.2	3.2	3.2	3.8	4.2
Gross Investment	13.9	14.7	13.7	14.9	15.8
Avg. Selling Price/Unit (Merchant)	.695	.957	1.037	1.103	1.107
Avg. Cost/Unit	.437	.574	.668	.699	.837
Total Production - MM Units	14.7	13.0	12.2	13.5	11.7
Total Capacity - MM Units	19.6	19.6	19.6	19.6	19.6
Percent Utilization - %	75.0	66.3	62.2	68.9	59.7
Merchant Sales - MM Units	14.9	14.1	12.7	13.6	12.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	14.9	14.1	12.7	13.6	12.0
Market Share (MM) - %	46	45	42	45	41
Ex-U.S.					
Depreciation	-	-	0.1	0.1	0.2
Gross Property Additions	-	-	-	0.4	0.8
Gross Property Retirements	-	-	-	0.1	0.1
Fixed Capital	3.9	4.2	4.6	5.3	5.9
Working Capital	2.1	1.5	2.1	2.4	3.0
Gross Investment	6.0	5.7	6.7	7.7	8.9
Avg. Selling Price/Unit (Merchant)	.733	.869	.884	.913	1.063
Avg. Cost/Unit	.495	.647	.605	.620	.680
Total Production - MM Units	10.6	6.1	8.0	9.2	9.6
Total Capacity - MM Units	13.5	13.5	12.7	13.2	13.4
Percent Utilization - %	78.5	45.2	63.0	69.7	71.6
Merchant Sales - MM Units	10.1	6.8	8.6	9.2	9.6
Intercompany Sales - MM Units	-	-	-	-	0.1
Total - MM Units	10.1	6.8	8.6	9.2	9.7
Market Share (MM) - %	29	23	26	25	25

COMMENTS:

Aspirin is used in analgesics, antipyretics, and anti-inflammatory products. Aspirin achieved an all time sales and profit year in 1977 by selling 1.5 million pounds over 1976. We will remain the largest world analgesics supplier by capturing a 40% share of the U.S. AAP market while holding aspirin position worldwide.

0683119

VANILLIN
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.5	10.6	18.5	23.6	22.9
Gross Profit	3.2	3.5	7.9	11.8	12.2
MAT	0.5	0.5	0.7	0.8	1.2
Performance Income	2.9	3.1	7.3	10.8	11.0
Net Income	1.6	1.7	4.0	5.9	5.6
Capital Employed	5.4	7.2	8.2	8.9	11.5
% ROC	29.6	23.6	48.8	66.3	48.7
As a % of Sales:					
Gross Profit	37.6	33.0	42.7	50.0	53.3
MAT	5.9	4.7	3.8	3.4	5.2
Performance Income	34.1	29.2	39.5	45.8	48.0
Net Income	18.8	16.0	21.6	25.0	24.5
U.S. and Export					
Sales	8.5	10.6	18.5	23.6	22.9
Gross Profit	3.2	3.5	7.9	11.8	12.2
MAT	0.5	0.5	0.7	0.8	1.2
Performance Income	2.9	3.1	7.3	10.8	11.0
Net Income	1.6	1.7	4.0	5.9	5.6
Capital Employed	5.4	7.2	8.2	8.9	11.5
% ROC	29.6	23.6	48.8	66.3	48.7
As a % of Sales:					
Gross Profit	37.6	33.0	42.7	50.0	53.3
MAT	5.9	4.7	3.8	3.4	5.2
Performance Income	34.1	29.2	39.5	45.8	48.0
Net Income	18.8	16.0	21.6	25.0	24.5
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Seattle 5.5 million pounds

0683120

VANILLIN
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
Worldwide					
Depreciation	0.4	0.5	0.5	0.6	0.9
Gross Property Additions	0.1	0.9	0.4	0.4	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	5.6	8.1	8.4	9.2	12.1
Working Capital	2.8	3.4	4.7	5.2	5.2
Gross Investment	8.4	11.7	13.1	14.4	17.1
Avg. Selling Price/Unit (Merchant)	2.639	3.212	3.854	4.816	4.790
Avg. Cost/Unit	1.652	2.152	2.288	2.408	2.232
Total Production - MM Units	4.2	4.1	4.8	5.2	5.5
Total Capacity - MM Units	4.7	4.7	5.2	5.2	5.5
Percent Utilization - %	89.4	87.2	92.3	100.0	100.0
Merchant Sales - MM Units	3.2	3.3	4.8	4.9	4.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.2	3.3	4.8	4.9	4.8
Market Share (MM) - %	29	31	38	36	36
U.S. & Export					
Depreciation	0.4	0.5	0.5	0.6	0.9
Gross Property Additions	0.1	0.9	0.4	0.4	0.3
Gross Property Retirements	-	-	-	-	-
Fixed Capital	5.6	8.1	8.4	9.2	12.1
Working Capital	2.8	3.4	4.7	5.2	5.2
Gross Investment	8.4	11.7	13.1	14.4	17.1
Avg. Selling Price/Unit (Merchant)	2.639	3.212	3.854	4.816	4.790
Avg. Cost/Unit	1.652	2.152	2.288	2.408	2.232
Total Production - MM Units	4.2	4.1	4.8	5.2	5.5
Total Capacity - MM Units	4.7	4.7	5.2	5.2	5.5
Percent Utilization - %	89.4	87.2	92.3	100.0	100.0
Merchant Sales - MM Units	3.2	3.3	4.8	4.9	4.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.2	3.3	4.8	4.9	4.8
Market Share (MM) - %	29	31	38	36	36
Ex U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Vanillin is used as a food flavor and pharmaceutical intermediate. In 1977, Vanillin continued its strong performance from the prior year. The heavy demand continued because of Hilton Davis withdrawing from the Vanillin business due to pollution problems. Profits were highest in history due to the strong demand and aggressive pricing. Monsanto will maintain 38% of the world market despite intensive competitive activity during the next five years.

0683121

MANUFACTURED FOOD PHOSPHATES
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital					See Thru	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977	1978	1977	1978
World-Wide							
Sales	15.0	18.3	23.5	24.8	27.8	24.8	27.8
Gross Profit	4.7	5.3	4.2	2.9	4.2	6.3	8.4
MAT	0.7	0.7	0.6	0.7	1.0	0.8	1.3
Performance Income	3.8	4.3	3.1	1.7	2.8	4.9	6.6
Net Income	2.0	2.3	1.5	0.8	1.3	2.6	3.3
Capital Employed	3.5	5.0	15.2	14.4	15.0	15.4	15.9
% ROC	57.1	46.0	9.9	5.6	8.7	16.9	20.8
As a % of Sales:							
Gross Profit	31.3	29.0	17.9	11.7	15.1	25.4	30.2
MAT	4.7	3.8	2.6	2.8	3.6	3.2	4.7
Performance Income	25.3	23.5	13.1	6.9	10.1	19.8	23.7
Net Income	13.3	12.6	6.4	3.2	4.7	10.5	11.9
U.S. and Export							
Sales	15.0	18.3	22.8	22.2	23.9	22.2	23.9
Gross Profit	4.7	5.3	4.6	2.8	3.3	6.2	7.5
MAT	0.7	0.7	0.6	0.5	0.9	0.6	1.2
Performance Income	3.8	4.3	3.6	1.9	2.1	5.1	5.9
Net Income	2.0	2.3	1.8	0.9	1.0	2.7	3.0
Capital Employed	3.5	5.0	7.6	8.5	10.0	9.5	10.9
% ROC	57.1	46.0	23.7	10.6	10.0	28.4	27.5
As a % of Sales:							
Gross Profit	31.3	29.0	20.2	12.6	13.8	27.9	31.4
MAT	4.7	3.8	2.6	2.3	3.8	2.7	5.0
Performance Income	25.3	23.5	15.8	8.6	8.8	23.0	24.7
Net Income	13.3	12.6	7.9	4.1	4.2	12.2	12.6
Ex-U.S.A.							
Sales	-	-	0.7	2.6	3.9	2.6	3.9
Gross Profit	-	-	(0.4)	0.1	0.9	0.1	0.9
MAT	-	-	-	0.2	0.1	0.2	0.1
Performance Income	-	-	(0.5)	(0.2)	0.7	(0.2)	0.7
Net Income	-	-	(0.3)	(0.1)	0.3	(0.1)	0.3
Capital Employed	-	-	7.6	5.9	5.0	5.9	5.0
% ROC	-	-	-	-	6.0	-	6.0
As a % of Sales:							
Gross Profit	-	-	-	3.8	23.1	3.8	23.1
MAT	-	-	-	7.7	2.6	7.7	2.6
Performance Income	-	-	-	-	17.9	-	17.9
Net Income	-	-	-	-	7.7	-	7.7

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Carondelet 122.7 million pounds
Trenton 48.6 million pounds
Brazil 15.0 million pounds

0683122

MANUFACTURED FOOD PHOSPHATE
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital				See Thru	
	Actual			Budget 1978	Actual 1977	Budget 1978
	1974	1975	1976			
World-Wide						
Depreciation	0.2	0.2	0.4	1.0	1.5	1.5
Gross Property Additions	0.2	1.1	8.6	0.7	0.4	0.4
Gross Property Retirements	0.1	-	0.2	0.2	0.2	0.1
Fixed Capital	1.9	5.1	13.5	11.8	12.2	13.4
Working Capital	2.5	3.1	4.9	6.8	7.5	8.4
Gross Investment	6.4	8.2	18.4	18.6	19.7	21.8
Avg. Selling Price Unit (Merchant)	.183	.238	.258	.287	.297	.320
Avg. Cost/Unit	.112	.169	.212	.262	.222	.233
Total Production - MM Units	94.3	83.8	93.5	88.8	88.8	94.2
Total Capacity - MM Units	156.7	162.5	170.2	182.3	182.3	186.3
Percent Utilization - %	60.2	51.6	54.9	48.7	48.7	50.5
Merchant Sales - MM Units	90.8	75.6	88.7	80.8	80.8	84.5
Intercompany Sales - MM Units	2.1	1.5	2.0	2.7	2.7	2.6
Total - MM Units	92.1	77.1	90.7	83.5	83.5	87.1
Market Share (M) - %	25	25	25	25	25	25
U.S. & Export						
Depreciation	0.2	0.2	0.2	0.3	0.3	0.4
Gross Property Additions	0.2	1.1	3.0	0.7	0.4	0.4
Gross Property Retirements	0.1	-	0.2	0.2	0.2	0.1
Fixed Capital	3.9	5.1	5.9	8.7	7.1	8.3
Working Capital	2.5	3.1	4.9	5.3	6.9	7.4
Gross Investment	6.4	8.2	10.8	12.0	13.6	15.7
Avg. Selling Price Unit (Merchant)	.163	.238	.258	.282	.282	.298
Avg. Cost/Unit	.112	.169	.203	.247	.203	.205
Total Production - MM Units	94.3	83.8	91.2	84.2	84.2	87.0
Total Capacity - MM Units	156.7	162.5	162.5	167.3	167.3	171.3
Percent Utilization - %	60.2	51.6	56.1	50.3	50.3	50.8
Merchant Sales - MM Units	90.8	75.6	87.4	76.0	76.0	77.4
Intercompany Sales - MM Units	2.1	1.5	2.0	2.7	2.7	2.6
Total - MM Units	92.1	77.1	89.4	78.7	78.7	80.0
Market Share (M) - %	25	25	25	24	24	24
Ex-U.S.A.						
Depreciation	-	-	-	0.7	0.7	1.1
Gross Property Additions	-	-	7.6	-	-	-
Gross Property Retirements	-	-	-	-	-	-
Fixed Capital	-	-	7.6	5.1	5.1	5.1
Working Capital	-	-	-	3.5	1.0	1.0
Gross Investment	-	-	7.6	6.6	6.1	6.1
Avg. Selling Price Unit (Merchant)	-	-	.538	.542	.542	.549
Avg. Cost/Unit	-	-	.846	.521	.521	.423
Total Production - MM Units	-	-	2.3	4.6	4.6	7.1
Total Capacity - MM Units	-	-	7.7	15.0	15.0	15.0
Percent Utilization - %	-	-	29.9	30.7	30.7	47.3
Merchant Sales - MM Units	-	-	1.3	4.8	4.8	7.1
Intercompany Sales - MM Units	-	-	-	-	-	-
Total - MM Units	-	-	1.3	4.8	4.8	7.1
Market Share (M) - %	-	-	15	55	55	76

COMMENTS:

Food phosphates are used principally as leavening agents, flow conditioners, cheese emulsifiers, food acidulants, and for calcium enrichment. Food phosphate sales increased 8% over 1976, however, volume declined 9% due to inventory accumulation coupled with a decline in market growth and demand. While net prices were increased 15%, costs appreciated at a 24% rate eroding the profit margin. The Brazilian phosphate plant completed its first full year of operation with sales and income up sharply during the last quarter of 1977. During 1978, prospects appear good for renewed volume and income growth in all geographic sectors.

0683123

ACL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	18.7	20.3	29.4	35.7	37.6
Gross Profit	4.6	4.1	9.9	12.3	14.2
MAT	0.6	1.1	1.8	3.5	1.9
Performance Income	3.4	2.4	7.5	8.1	11.8
Net Income	1.6	1.1	3.8	4.1	5.8
Capital Employed	15.0	19.4	19.3	19.3	26.1
% ROC	10.7	5.7	19.7	21.2	22.2
As a % of Sales:					
Gross Profit	24.6	20.2	33.7	34.5	37.8
MAT	3.2	5.4	6.1	9.8	5.1
Performance Income	18.2	11.8	25.5	22.7	31.4
Net Income	8.6	5.4	12.9	11.5	15.4
U.S. and Export					
Sales	18.7	20.3	29.4	35.7	37.6
Gross Profit	4.6	4.1	9.9	12.3	14.2
MAT	0.6	1.1	1.8	3.5	1.9
Performance Income	3.4	2.4	7.5	8.1	11.8
Net Income	1.6	1.1	3.8	4.1	5.8
Capital Employed	15.0	19.4	19.3	19.3	26.1
% ROC	10.7	5.7	19.7	21.2	22.2
As a % of Sales:					
Gross Profit	24.6	20.2	33.7	34.5	37.8
MAT	3.2	5.4	6.1	9.8	5.1
Performance Income	18.2	11.8	25.5	22.7	31.4
Net Income	8.6	5.4	12.9	11.5	15.4
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Luling 14.2 million pounds
Krummrich 25.0 million pounds

0683124

ACL					
AMOUNTS IN MILLIONS					
	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	1.2	1.2	0.8	1.7	1.9
Gross Property Additions	0.2	2.7	0.5	2.3	5.2
Gross Property Retirements	-	0.2	0.2	0.2	0.9
Fixed Capital	18.4	20.2	22.5	22.6	29.2
Working Capital	7.4	9.8	10.6	9.6	10.7
Gross Investment	25.8	30.0	33.1	32.2	39.9
Avg. Selling Price Unit (Merchant)	.597	.853	.913	1.053	1.092
Avg. Cost/Unit	.450	.681	.606	.690	.680
Total Production - MM Units	32.4	22.8	31.0	33.4	36.7
Total Capacity - MM Units	31.6	35.4	36.4	39.2	39.2
Percent Utilization - %	102.5	64.4	85.2	85.2	93.5
Merchant Sales - MM Units	31.3	23.8	32.2	33.9	34.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	31.3	23.8	32.2	33.9	34.4
Market Share (M/I) - %	34	32	35	38	38
U.S. & Export					
Depreciation	1.2	1.2	0.8	1.7	1.9
Gross Property Additions	0.2	2.7	0.5	2.3	5.2
Gross Property Retirements	-	0.2	0.2	0.2	0.9
Fixed Capital	18.4	20.2	22.5	22.6	29.2
Working Capital	7.4	9.8	10.6	9.6	10.7
Gross Investment	25.8	30.0	33.1	32.2	39.9
Avg. Selling Price Unit (Merchant)	.597	.853	.913	1.053	1.092
Avg. Cost/Unit	.450	.681	.606	.690	.680
Total Production - MM Units	32.4	22.8	31.0	33.4	36.7
Total Capacity - MM Units	31.6	35.4	36.4	39.2	39.2
Percent Utilization - %	102.5	64.4	85.2	85.2	93.5
Merchant Sales - MM Units	31.3	23.8	32.2	33.9	34.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	31.3	23.8	32.2	33.9	34.4
Market Share (M/I) - %	34	32	35	38	38
Excluded					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (M/I) - %	-	-	-	-	-

COMMENTS:

ACL's find application as a disinfectant for swimming pools and as a bleaching/sanitizing agent for industrial/household uses. Monsanto has 18% of the worldwide markets. PWC is the only other U.S. producer at this time. During 1977, Olin announced the construction of a 20-25 million pound plant to serve the U.S. pool market for start up in 1980. After Olin's 1980 plant start up, a market share decline in ACL pool sales is anticipated. Consequently, a concentrated effort is being made to increase our market share in the industrial market from a 1977 level of 15% to a 1981 level of 45%. A R&D study resulted in reclassifying ACL from growth to cash maximization. Pool promotion expense which was \$1.9 million in 1977 has been eliminated in 1978.

0683125

DEQUEST

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	9.5	11.8	12.9	16.5	18.2
Gross Profit	2.4	4.4	4.3	4.8	5.2
MAT	0.5	1.1	1.4	1.3	1.6
Performance Income	1.8	3.2	3.0	3.2	3.2
Net Income	0.9	1.7	1.6	1.6	1.6
Capital Employed	4.2	5.4	7.3	8.2	9.8
% ROC	21.4	31.5	21.9	19.5	16.3
As a % of Sales:					
Gross Profit	25.3	37.3	33.3	29.1	28.6
MAT	5.3	9.3	10.9	7.9	8.8
Performance Income	18.9	27.1	23.3	19.4	17.6
Net Income	9.5	14.4	12.4	9.7	8.8
U.S. and Export					
Sales	9.5	11.8	11.9	13.6	15.0
Gross Profit	2.4	4.4	4.6	4.3	4.5
MAT	0.5	1.1	1.3	1.1	1.1
Performance Income	1.8	3.2	3.4	3.0	3.2
Net Income	0.9	1.7	1.8	1.5	1.6
Capital Employed	4.2	5.4	4.7	5.3	6.8
% ROC	21.4	31.5	38.3	28.3	23.5
As a % of Sales:					
Gross Profit	25.3	37.3	38.7	31.6	30.0
MAT	5.3	9.3	10.9	8.1	7.3
Performance Income	18.9	27.1	28.6	22.1	21.3
Net Income	9.5	14.4	15.1	11.0	10.7
Ex-U.S.A.					
Sales	-	-	1.0	2.9	3.2
Gross Profit	-	-	(0.3)	0.5	0.7
MAT	-	-	0.1	0.2	0.5
Performance Income	-	-	(0.4)	0.2	-
Net Income	-	-	(0.2)	0.1	-
Capital Employed	-	-	2.6	2.9	3.0
% ROC	-	-	-	3.4	-
As a % of Sales:					
Gross Profit	-	-	-	17.2	21.9
MAT	-	-	10.0	6.9	15.6
Performance Income	-	-	-	6.9	-
Net Income	-	-	-	3.4	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Everett 34.5 million pounds
 Newport 12.4 million pounds

0683126

DEQUEST
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.3	0.3	0.7	0.8	0.9
Gross Property Additions	0.3	5.0	1.7	0.5	1.4
Gross Property Retirements	-	0.2	0.1	0.1	0.1
Fixed Capital	3.4	6.9	7.3	6.6	10.9
Working Capital	2.7	3.1	2.9	3.9	4.2
Gross Investment	6.1	10.0	10.2	12.5	15.1
Avg. Selling Price/Unit (Merchandise)	.467	.670	.720	.685	.823
Avg. Cost/Unit	.348	.420	.480	.492	.588
Total Production - MM Units	22.0	21.5	22.1	28.3	28.7
Total Capacity - MM Units	22.0	34.5	44.7	46.5	46.9
Percent Utilization - %	100.0	62.3	49.4	60.9	61.2
Merchant Sales - MM Units	20.2	17.6	17.8	20.4	22.0
Intercompany Sales - MM Units	0.1	-	0.1	3.4	0.1
Total - MM Units	20.3	17.6	17.9	23.8	22.1
Market Share (MM) - %	85	80	75	68	68
U.S. & Export					
Depreciation	0.3	0.3	0.4	0.4	0.5
Gross Property Additions	0.3	1.7	0.9	0.4	1.2
Gross Property Retirements	-	0.2	0.1	0.1	0.1
Fixed Capital	3.4	4.6	4.2	5.6	7.5
Working Capital	2.7	3.1	2.7	2.9	3.1
Gross Investment	6.1	7.7	6.9	8.5	10.6
Avg. Selling Price/Unit (Merchandise)	.467	.670	.725	.687	.849
Avg. Cost/Unit	.348	.420	.445	.477	.593
Total Production - MM Units	22.0	21.5	20.3	23.5	24.1
Total Capacity - MM Units	22.0	34.5	34.5	34.5	34.5
Percent Utilization - %	100.0	62.3	58.8	68.1	69.9
Merchant Sales - MM Units	20.2	17.6	16.3	18.1	17.5
Intercompany Sales - MM Units	0.1	-	0.1	3.4	0.1
Total - MM Units	20.3	17.6	16.4	19.5	17.6
Market Share (MM) - %	85	80	80	75	75
Latin America					
Depreciation	-	-	0.3	0.4	0.4
Gross Property Additions	-	2.3	0.8	0.1	0.2
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	2.3	3.1	3.0	3.4
Working Capital	-	-	0.2	1.0	1.1
Gross Investment	-	2.3	3.3	4.0	4.5
Avg. Selling Price/Unit (Merchandise)	-	-	.667	.674	.711
Avg. Cost/Unit	-	-	.667	.558	.556
Total Production - MM Units	-	-	1.8	4.8	4.6
Total Capacity - MM Units	-	-	10.2	12.0	12.4
Percent Utilization - %	-	-	17.6	40.0	37.1
Merchant Sales - MM Units	-	-	1.5	4.3	4.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	1.5	4.3	4.5
Market Share (MM) - %	-	-	45	50	50

COMMENTS:

Dequest products find major applications as scale and corrosion inhibitors for industrial water treatment and secondary oil recovery. Nonamato has 65% of the worldwide industrial treating phosphonate market. Sales are expected to continue at a minimum growth rate of 5% per year. In 1977 and 1978, domestic and export gross profits are impacted by obsolescence and start-up expense associated with two appropriation requests. One of these will reduce Dequest 1978 costs in 1979 when gross profit margins should improve to 36% of sales. The 1978 European P.I. is affected by a reallocation of R&D expense.

0683127

THERMINOLS

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	3.6	4.7	6.3	7.6	9.5
Gross Profit	2.0	2.4	3.1	3.8	4.2
MAT	0.3	0.4	0.6	0.6	0.7
Performance Income	1.7	2.0	2.4	3.1	3.2
Net Income	0.9	1.1	1.3	1.6	1.6
Capital Employed	1.1	1.5	3.3	3.4	5.0
% ROC	81.8	73.2	39.4	47.1	32.0
As a % of Sales:					
Gross Profit	55.6	51.1	49.2	50.0	44.2
MAT	8.3	8.5	9.5	7.9	7.4
Performance Income	47.2	42.6	38.1	40.8	33.7
Net Income	25.0	23.4	20.6	21.1	16.8
U.S. and Export					
Sales	3.6	4.3	5.4	6.6	7.8
Gross Profit	2.0	2.3	2.7	3.5	3.7
MAT	0.3	0.4	0.5	0.5	0.6
Performance Income	1.7	1.9	2.1	2.9	2.9
Net Income	0.9	1.0	1.1	1.5	1.4
Capital Employed	1.1	1.2	2.9	2.8	4.2
% ROC	81.8	83.3	37.9	53.6	33.3
As a % of Sales:					
Gross Profit	55.6	53.5	50.0	53.0	47.4
MAT	8.3	9.3	9.3	7.6	7.7
Performance Income	47.2	44.2	38.9	43.9	37.2
Net Income	25.0	23.3	20.4	22.7	17.9
Ex-U.S.A.					
Sales	-	0.4	0.9	1.0	1.7
Gross Profit	-	0.1	0.4	0.3	0.5
MAT	-	-	0.1	0.1	0.1
Performance Income	-	0.1	0.3	0.2	0.3
Net Income	-	0.1	0.2	0.1	0.2
Capital Employed	-	0.3	0.4	0.6	0.8
% ROC	-	33.3	50.0	16.6	25.0
As a % of Sales:					
Gross Profit	-	25.0	44.4	30.0	29.4
MAT	-	-	11.1	10.0	5.9
Performance Income	-	25.0	33.3	20.0	17.6
Net Income	-	25.0	22.2	10.0	11.8

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Anniston 8.0 million pounds
 Chocolate Bayou 5.2 million pounds
 Newport 2.8 million pounds

0683128

Capacity assignment reflects sales and use of HB-40 in Santosol, Plastisizer and Therminol applications. Therminol VP-1 capacity reflects sales of DPO in Therminol VP-1.

THERMINOLS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	0.1	0.1	0.1	0.2
Gross Property Additions	-	0.3	1.1	0.5	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.2	1.4	3.0	1.2	5.8
Working Capital	0.7	0.9	1.7	2.2	3.4
Gross Investment	1.9	2.3	4.7	3.4	9.2
Avg. Selling Price/Unit (Merchant)	.343	.553	.578	.631	.674
Avg. Cost/Unit	.144	.231	.294	.311	.379
Total Production - MM Units	5.8	3.5	7.7	9.2	10.3
Total Capacity - MM Units	7.7	9.3	14.5	18.3	16.8
Percent Utilization - %	75.3	37.6	53.1	55.8	64.4
Merchant Sales - MM Units	10.2	8.4	18.6	11.6	13.5
Intercompany Sales - MM Units	0.2	0.1	0.3	0.6	0.5
Total - MM Units	10.4	8.5	18.9	12.2	14.0
Market Share (MM) - %	15	15	16	16	16
U.S. & Export					
Depreciation	-	0.1	0.1	0.1	0.1
Gross Property Additions	-	-	1.1	0.5	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	1.2	1.1	2.6	2.5	4.9
Working Capital	0.7	0.9	1.5	1.9	2.9
Gross Investment	1.9	2.0	4.1	4.4	7.8
Avg. Selling Price/Unit (Merchant)	.343	.551	.538	.646	.692
Avg. Cost/Unit	.144	.253	.273	.304	.366
Total Production - MM Units	5.8	2.9	6.1	7.2	7.5
Total Capacity - MM Units	7.7	8.1	12.7	14.5	13.2
Percent Utilization - %	75.3	35.8	48.0	49.7	56.8
Merchant Sales - MM Units	10.2	7.8	9.7	9.6	10.7
Intercompany Sales - MM Units	0.2	0.1	0.3	0.6	0.5
Total - MM Units	10.4	7.9	10.0	10.2	11.2
Market Share (MM) - %	15	15	16	15	16
Ex-U.S.A.					
Depreciation	-	-	-	-	0.1
Gross Property Additions	-	0.3	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	0.3	0.4	0.7	0.9
Working Capital	-	-	0.2	0.3	0.5
Gross Investment	-	0.3	0.6	1.0	1.4
Avg. Selling Price/Unit (Merchant)	-	.628	.573	.500	.487
Avg. Cost/Unit	-	.452	.320	.350	.429
Total Production - MM Units	-	0.6	1.6	2.0	2.8
Total Capacity - MM Units	-	1.2	1.8	2.0	2.8
Percent Utilization - %	-	50.0	88.9	100.0	100.0
Merchant Sales - MM Units	-	0.6	0.9	2.0	2.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	0.6	0.9	2.0	2.8
Market Share (MM) - %	-	15	15	17	22

COMMENTS: (NOTE: Capacity and Production reflect only Therminol 66 and VP-1)

The Therminals are composed of five products which cover the broad spectrum of liquid and vapor heat transfer fluids. The principal liquid products are Therminol 55 and Therminol 66, both of which are highly profitable. The newest product is Therminol VP-1, a blend of DPO and biphenyl, which was introduced in 1976 for vapor phase heat transfer. The DPO plant started up in January 1976 to supply the main raw material of the VP-1 blend. Increased market share and sales growth reflect the introduction of this new product. Newport 89-40 plant started up in first quarter 1975, which supplies the European requirements for Therminol 66. Costs for Amiaton and Newport Therminol 66 for 1978 reflect major cost increases in polyphenyl production costs due to volume losses with discontinuance of PCB dielectric product line.

0683129

MHA

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	9.9	8.6	7.6	13.3	14.3
Gross Profit	5.4	3.4	1.6	5.6	6.2
MAT	0.3	0.3	0.2	0.4	0.5
Performance Income	4.9	2.9	1.2	5.0	5.4
Net Income	2.6	1.5	0.6	2.6	2.7
Capital Employed	2.4	2.4	2.6	4.2	5.8
% ROC	108.3	62.5	23.1	61.9	46.6
As a % of Sales:					
Gross Profit	54.5	39.5	21.1	42.1	43.4
MAT	3.0	3.5	2.6	3.0	3.5
Performance Income	49.5	33.7	15.8	37.6	37.8
Net Income	26.3	17.4	7.9	19.5	18.9
U.S. and Export					
Sales	9.9	8.6	7.6	13.3	14.3
Gross Profit	5.4	3.4	1.6	5.6	6.2
MAT	0.3	0.3	0.2	0.4	0.5
Performance Income	4.9	2.9	1.2	5.0	5.4
Net Income	2.6	1.5	0.6	2.6	2.7
Capital Employed	2.4	2.4	2.6	4.2	5.8
% ROC	108.3	62.5	23.1	61.9	46.6
As a % of Sales:					
Gross Profit	54.5	39.5	21.1	42.1	43.4
MAT	3.0	3.5	2.6	3.0	3.5
Performance Income	49.5	33.7	15.8	37.6	37.8
Net Income	26.3	17.4	7.9	19.5	18.9
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Nitro 12.2 million pounds

0683130

NIA
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
Worldwide					
Depreciation	0.2	0.2	0.3	0.3	0.3
Gross Property Additions	-	0.1	0.7	0.3	0.6
Gross Property Retirements	-	-	0.2	0.1	0.1
Fixed Capital	4.5	4.5	4.7	6.0	7.6
Working Capital	1.3	1.1	1.1	2.0	2.3
Gross Investment	5.8	5.6	5.0	8.0	9.9
Avg. Selling Price/Unit (Merchant)	.908	.860	.844	1.099	1.205
Avg. Cost/Unit	.413	.520	.667	.636	.682
Total Production - MM Units	11.6	9.7	8.2	12.1	11.9
Total Capacity - MM Units	12.0	12.0	12.2	12.2	12.2
Percent Utilization - %	96.7	72.5	67.2	99.2	97.5
Merchant Sales - MM Units	10.9	10.0	9.0	12.1	11.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	10.9	10.0	9.0	12.1	11.9
Market Share (MW) - %	7	6	5	5	5
U.S. & Export					
Depreciation	0.2	0.2	0.3	0.3	0.3
Gross Property Additions	-	0.1	0.7	0.3	0.6
Gross Property Retirements	-	-	0.2	0.1	0.1
Fixed Capital	4.5	4.5	4.7	6.0	7.6
Working Capital	1.3	1.1	1.1	2.0	2.3
Gross Investment	5.8	5.6	5.0	8.0	9.9
Avg. Selling Price/Unit (Merchant)	.908	.860	.844	1.099	1.205
Avg. Cost/Unit	.413	.520	.667	.636	.682
Total Production - MM Units	11.6	9.7	8.2	12.1	11.9
Total Capacity - MM Units	12.0	12.0	12.2	12.2	12.2
Percent Utilization - %	96.7	72.5	67.2	99.2	97.5
Merchant Sales - MM Units	10.9	10.0	9.0	12.1	11.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	10.9	10.0	9.0	12.1	11.9
Market Share (MW) - %	7	6	5	5	5
Canada					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MW) - %	-	-	-	-	-

COMMENTS:

NIA is a synthetic amino acid used to supplement and nutritionally balance animal feed rations. The primary market is poultry. Sales and performance income accelerated dramatically in 1977 resulting from a worldwide shortage, maximum plant capacity performance, and aggressive pricing. During 1978, we will continue with the present cash maximization strategy and complete the RMP analysis, seek AR approval for rehabilitation of the Nitro unit, and analyze the potential for a major new plant for the future.

0683131

SPECIALTY CHEMICALS DIVISION
Minor Products/Eliminations

AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	139.9	153.9	158.5
Gross Profit	36.2	33.0	29.1
MAT	13.8	14.9	15.7
Performance Income	19.6	14.7	10.1
Net Income	9.7	6.6	3.5
Capital Employed	101.2	123.9	127.6
% PROC	9.6	5.3	2.7
Fixed Capital	98.1	112.6	111.1
Working Capital	48.9	58.0	63.8
U.S. & Export			
Sales	123.1	132.9	137.4
Gross Profit	32.2	27.6	24.0
MAT	11.8	13.1	14.7
Performance Income	18.1	11.9	7.0
Net Income	9.2	5.4	2.2
Capital Employed	93.5	107.4	115.6
% PROC	9.8	5.0	1.9
Fixed Capital	85.9	102.1	99.9
Working Capital	47.5	49.1	56.5
Ex-U.S.A.			
Sales	16.8	21.0	21.1
Gross Profit	4.0	5.4	5.1
MAT	2.0	1.8	1.6
Performance Income	1.5	2.8	3.1
Net Income	0.5	1.2	1.3
Capital Employed	7.7	16.5	12.0
% PROC	6.5	7.3	10.8
Fixed Capital	12.2	10.5	11.2
Working Capital	1.4	8.9	7.3

Form IV

0683132

PLASTICIZERS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	189.7	174.4	206.8	225.8	259.7
Gross Profit	52.1	35.7	43.0	40.2	46.5
MAT	6.5	8.3	9.1	10.8	11.9
Performance Income	43.2	23.6	30.6	26.1	30.5
Net Income	21.5	11.7	15.2	12.8	14.2
Capital Employed	86.4	93.9	110.5	127.0	153.7
% ROC	24.9	12.5	13.8	10.1	9.2
As a % of Sales:					
Gross Profit	27.5	20.5	20.8	17.8	17.9
MAT	3.4	4.8	4.4	4.8	4.6
Performance Income	22.8	13.5	14.8	11.6	11.7
Net Income	11.3	6.7	7.4	5.7	5.5
U.S. and Export					
Sales	148.9	144.2	170.8	189.2	217.1
Gross Profit	43.3	30.4	37.4	36.0	41.9
MAT	5.0	6.1	6.7	8.0	8.9
Performance Income	36.8	21.4	28.1	25.7	30.0
Net Income	18.2	10.7	14.1	12.9	14.4
Capital Employed	75.3	81.4	93.6	106.3	115.6
% ROC	24.2	13.1	15.1	12.1	12.5
As a % of Sales:					
Gross Profit	29.1	21.1	21.9	19.0	19.3
MAT	3.4	4.2	3.9	4.2	4.1
Performance Income	24.7	14.8	16.5	13.6	13.8
Net Income	12.2	7.4	8.3	6.8	6.6
Ex-U.S.A.					
Sales	40.8	30.2	36.0	36.6	42.6
Gross Profit	8.8	5.3	5.6	4.2	4.6
MAT	1.5	2.2	2.4	2.8	3.0
Performance Income	6.4	2.2	2.5	0.4	0.5
Net Income	3.3	1.0	1.1	(0.1)	(0.2)
Capital Employed	11.1	12.5	16.9	20.7	38.1
% ROC	29.7	8.0	6.5	-	-
As a % of Sales:					
Gross Profit	21.6	17.5	15.6	11.5	10.8
MAT	3.7	7.3	6.7	7.7	7.0
Performance Income	15.7	7.3	6.9	1.1	1.2
Net Income	8.1	3.3	3.1	-	-

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PLASTICIZERS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	4.7	4.6	5.6	6.1	8.3
Gross Property Additions	4.7	7.6	5.4	21.2	15.7
Gross Property Retirements	-	-	0.9	1.0	0.6
Fixed Capital	88.0	99.2	106.0	121.0	145.9
Working Capital	56.0	53.1	67.1	73.5	80.3
Gross Investment	144.0	152.3	173.1	194.5	226.2
U.S. & Export					
Depreciation	4.2	4.2	4.6	5.4	7.4
Gross Property Additions	4.3	5.4	4.9	18.4	13.6
Gross Property Retirements	0.3	0.6	0.9	0.7	0.6
Fixed Capital	78.8	87.8	93.4	105.6	112.3
Working Capital	49.0	46.5	56.4	61.2	67.5
Gross Investment	127.8	134.3	149.8	166.8	179.8
Ex-USA					
Depreciation	0.5	0.4	1.0	0.7	0.9
Gross Property Additions	0.4	2.2	0.5	2.8	2.1
Gross Property Retirements	-	-	-	0.3	-
Fixed Capital	9.2	11.4	12.6	15.4	33.6
Working Capital	7.0	6.6	10.7	12.3	12.8
Gross Investment	16.2	18.0	23.3	27.7	46.4

COMMENTS:

Domestic and export combined sales volume is budgeted to increase by 8% in 1978, including a domestic growth rate of 7%, export of 14%. Substantial price increases are budgeted to compensate for inflationary costs of raw materials, energy and conversion and maintain profit margins. World market prices will continue to depress export and Ex-USA profitability on Santicizer 711 and Santicizer 160 below domestic levels. Ex-USA sales and performance income is expected to increase modestly; this despite the transfer of some benzyl phthalate sales from Antwerp to U.S. exports because of the availability of the new W.G. Krummrich Santicizer 160/benzyl chloride facility.

0683134

SANTICIZER 711 & BLENDS
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital					See Thru	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977			
World-Wide							
Sales	46.8	49.9	58.8	61.5	69.5	61.5	69.5
Gross Profit	16.2	9.9	9.4	8.5	10.8	8.7	10.9
MAT	1.0	1.7	2.4	2.7	2.1	2.7	2.1
Performance Income	14.7	7.3	6.1	5.3	7.9	5.5	8.0
Net Income	7.7	3.6	2.9	2.7	3.9	2.8	4.0
Capital Employed	28.7	28.3	32.2	31.2	34.2	31.6	34.5
% ROC	26.8	12.7	9.0	8.7	11.4	8.9	11.6
As a % of Sales:							
Gross Profit	34.6	19.8	16.0	13.8	15.5	14.1	15.7
MAT	2.1	3.4	4.1	4.4	3.0	4.4	3.0
Performance Income	31.4	14.6	10.4	8.6	11.4	8.9	11.5
Net Income	16.5	7.2	4.9	4.4	5.6	4.6	5.8
U.S. and Export							
Sales	44.5	48.3	56.7	60.9	69.5	60.9	69.5
Gross Profit	16.0	10.0	9.5	8.8	10.8	9.0	10.9
MAT	1.0	1.6	2.3	2.7	2.1	2.7	2.1
Performance Income	14.5	7.5	6.3	5.6	7.9	5.8	8.0
Net Income	7.6	3.7	3.0	2.8	3.9	2.9	4.0
Capital Employed	27.1	27.3	31.2	31.2	34.2	31.6	34.5
% ROC	28.0	13.6	9.6	9.0	11.4	9.2	11.6
As a % of Sales:							
Gross Profit	36.0	20.7	16.8	14.4	15.5	14.8	15.7
MAT	2.2	3.3	4.1	4.4	3.0	4.4	3.0
Performance Income	32.6	15.5	11.1	9.2	11.4	9.5	11.5
Net Income	17.1	7.7	5.3	4.6	5.6	4.8	5.8
Ex-U.S.A.							
Sales	2.3	1.6	2.1	0.6	-	0.6	-
Gross Profit	0.2	(0.1)	(0.1)	(0.3)	-	(0.3)	-
MAT	-	0.1	0.1	-	-	-	-
Performance Income	0.2	(0.2)	(0.2)	(0.3)	-	(0.3)	-
Net Income	0.1	(0.1)	(0.1)	(0.1)	-	(0.1)	-
Capital Employed	1.6	1.0	1.0	-	-	-	-
% ROC	6.3	-	-	-	-	-	-
As a % of Sales:							
Gross Profit	8.7	-	-	-	-	-	-
MAT	-	6.3	4.8	-	-	-	-
Performance Income	8.7	-	-	-	-	-	-
Net Income	4.3	-	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Texas City 295.8 million pounds

0683135

SANTICIZER 711 & BLENDS AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital				See Note	
	Actual				Actual	Budget
	1974	1975	1976	1977	1977	1978
World-Wide						
Depreciation	1.7	1.8	1.8	2.0	2.2	2.2
Gross Property Additions	1.3	0.8	0.5	0.9	6.7	6.7
Gross Property Retirements	-	0.1	-	0.4	0.1	0.1
Fixed Capital	26.4	27.0	31.4	30.8	31.4	31.9
Working Capital	14.9	16.8	19.8	20.5	22.6	22.7
Gross Investment	41.3	43.8	51.2	51.3	54.0	54.9
Avg. Selling Price Unit (Merchant)	.216	.251	.259	.266	.292	.266
Avg. Cost Unit	.141	.201	.219	.229	.245	.228
Total Production - MM Units	246.7	198.6	242.3	250.9	256.7	250.9
Total Capacity - MM Units	288.6	285.5	321.2	321.2	295.0	321.2
Percent Utilization - %	85.5	74.2	75.4	78.1	86.8	78.1
Merchant Sales - MM Units	214.7	198.3	226.4	230.7	233.5	230.7
Intercompany Sales - MM Units	2.2	0.8	0.8	0.9	5.4	5.4
Total - MM Units	216.9	199.1	227.2	231.6	238.9	236.1
Market Share (MM) - %	8	8	8	9	9	9
U.S. & Export						
Depreciation	1.7	1.8	1.8	2.0	2.2	2.2
Gross Property Additions	1.0	0.8	0.5	0.9	6.7	6.7
Gross Property Retirements	-	0.1	-	0.1	0.1	0.1
Fixed Capital	25.9	26.5	31.0	30.8	31.4	31.9
Working Capital	14.2	16.2	19.2	20.5	22.6	22.7
Gross Investment	40.1	42.7	50.2	51.3	54.0	54.9
Avg. Selling Price Unit (Merchant)	.212	.249	.256	.265	.292	.265
Avg. Cost Unit	.135	.198	.213	.227	.245	.226
Total Production - MM Units	259.5	207.0	234.2	248.9	256.7	248.9
Total Capacity - MM Units	267.6	264.3	300.0	300.0	295.0	300.0
Percent Utilization - %	97.0	78.6	78.7	83.0	86.8	83.0
Merchant Sales - MM Units	209.5	193.2	220.4	229.1	233.5	229.1
Intercompany Sales - MM Units	1.4	0.8	0.8	0.9	5.4	5.4
Total - MM Units	210.9	194.0	221.2	230.0	238.9	234.5
Market Share (MM) - %	19	19	20	19	19	19
Excl. U.S.						
Depreciation	-	-	-	-	-	-
Gross Property Additions	6.3	-	-	-	-	-
Gross Property Retirements	-	-	-	0.3	-	-
Fixed Capital	0.3	0.5	0.4	-	-	-
Working Capital	0.7	0.6	0.6	-	-	-
Gross Investment	1.2	1.1	1.0	-	-	-
Avg. Selling Price Unit (Merchant)	.387	.313	.350	.375	-	.375
Avg. Cost Unit	.356	.332	.367	.363	-	.363
Total Production - MM Units	6.1	3.9	6.1	2.0	-	2.0
Total Capacity - MM Units	21.0	21.2	21.2	21.2	-	21.2
Percent Utilization - %	29.0	18.4	28.8	9.4	-	9.4
Merchant Sales - MM Units	5.2	5.1	6.0	1.6	-	1.6
Intercompany Sales - MM Units	0.8	-	-	-	-	-
Total - MM Units	6.0	5.1	6.0	1.6	-	1.6
Market Share (MM) - %	-	23	18	6	-	6

COMMENTS:

Santicizer 711 is the American PVC industry's standard low temperature flexibilizing plasticizer with many high volume applications such as automotive upholstery and telephone wire jacketing. Major U.S. customers include Wards Chemical, E. F. Goodrich, Chrysler, Ford, General Tire, Stauffer Chemical, Unocal and Western Electric. The sizable gain in Performance Income budgeted for 1978 reflects a 7% volume gain and combined Domestic and Export price increases that exceed budgeted cost increases, resulting in modest improvement in margins. Santicizer 711 with an ethylene based oxo-alcohol has a high cost position relative to the competitors whose alcohols are based on lower cost propylene (DDP from BASF, Eastman and M. R. Grace) or Cgs (DDP from Exxon). Thus S-711 profits are not expected to duplicate 1974 record levels until conversion to a lower cost olefin can be achieved.

0683136

SANTICIZER 160 & BLENDS
AMOUNTS IN MILLION

	Transfer Price/Cost & Capital					See thru	
	Actual				Budget 1978	Actual 1977	Budget 1978
	1974	1975	1976	1977			
World-Wide							
Sales	56.2	50.0	59.1	63.1	79.2	63.1	79.2
Gross Profit	12.8	10.8	15.4	12.5	16.8	12.6	17.0
MAT	1.8	2.3	2.7	3.4	4.3	3.5	4.4
Performance Income	10.1	7.4	11.6	7.7	11.0	7.8	11.2
Net Income	5.3	3.8	5.8	3.6	5.1	3.7	5.2
Capital Employed	18.2	22.7	22.4	43.4	50.4	44.1	51.3
% ROC	29.1	16.7	17.9	8.3	10.1	8.4	10.1
As a % of Sales:							
Gross Profit	22.8	21.6	26.1	19.8	21.2	20.0	21.5
MAT	3.2	4.6	4.6	5.4	5.4	5.5	5.6
Performance Income	18.0	14.8	19.6	12.2	13.9	12.4	14.1
Net Income	9.4	7.6	9.8	5.7	6.4	5.9	6.6
U.S. and Export							
Sales	26.8	28.9	35.2	38.3	52.6	38.3	52.6
Gross Profit	6.0	5.8	9.9	8.6	12.9	8.7	13.1
MAT	0.7	0.8	1.1	1.4	2.3	1.5	2.4
Performance Income	4.8	4.4	8.2	6.6	9.9	6.7	10.1
Net Income	2.5	2.3	4.1	3.2	4.7	3.3	4.8
Capital Employed	8.1	14.0	23.3	29.2	33.1	29.9	34.0
% ROC	30.9	16.4	17.6	11.0	14.2	11.0	14.1
As a % of Sales:							
Gross Profit	22.4	20.1	28.1	22.5	24.5	22.7	24.9
MAT	2.6	2.8	3.1	3.7	4.4	3.9	4.6
Performance Income	17.9	15.2	23.3	17.2	18.8	17.5	19.2
Net Income	9.3	8.0	11.6	8.4	8.9	8.6	9.1
Ex-U.S.A.							
Sales	29.4	21.1	23.9	24.8	26.6	24.8	26.6
Gross Profit	6.8	5.0	5.5	3.9	3.9	3.9	3.9
MAT	1.1	1.5	1.6	2.0	2.0	2.0	2.0
Performance Income	5.3	3.0	3.4	1.1	1.1	1.1	1.1
Net Income	2.8	1.5	1.7	0.4	0.4	0.4	0.4
Capital Employed	10.1	8.7	9.1	14.2	17.3	14.2	17.3
% ROC	27.7	17.2	18.7	2.8	2.3	2.8	2.1
As a % of Sales:							
Gross Profit	23.1	23.7	23.0	15.7	14.7	15.7	14.7
MAT	3.7	7.1	6.7	8.1	7.5	8.1	7.5
Performance Income	18.0	14.2	14.2	4.4	4.1	4.4	4.1
Net Income	9.5	7.1	7.1	1.6	1.5	1.6	1.5

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Krummrich 100.0 million pounds
Delaware River 130.4 million pounds
Antwerp 104.6 million pounds

0683137

SANTICIZER 160 & BLENDS
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital				Budget		See-How	
	Actual				1978	Actual 1977	Budget 1978	
	1974	1975	1976	1977				
Worldwide								
Depreciation	0.8	0.8	1.1	1.5	3.3	1.5	3.1	
Gross Property Additions	1.8	1.7	1.2	15.7	4.1	15.7	4.1	
Gross Property Retirements	-	0.1	0.1	0.1	0.1	0.1	0.1	
Fixed Capital	15.4	18.7	29.8	41.2	47.4	44.3	49.9	
Working Capital	14.1	16.5	17.4	18.1	23.7	18.1	23.8	
Gross Investment	29.7	35.2	47.2	59.3	71.1	62.5	73.7	
Avg. Selling Price Unit (Merchant)	.269	.289	.298	.312	.331	.312	.331	
Avg. Cost Unit	.209	.226	.217	.229	.237	.229	.237	
Total Production - MM Units	196.2	145.6	182.4	175.4	218.0	175.4	210.8	
Total Capacity - MM Units	219.1	222.2	219.6	232.8	235.0	232.8	235.0	
Percent Utilization - %	93.4	65.5	83.1	52.7	62.7	52.7	62.7	
Merchant Sales - MM Units	200.2	169.3	191.1	198.0	232.2	198.0	212.1	
Intercompany Sales - MM Units	6.7	4.0	26.0	22.9	30.7	22.9	30.7	
Total - MM Units	206.9	173.3	217.1	220.9	262.9	220.9	242.8	
Market Share (MM) - %	85	85	85	85	85	85	85	
U.S. & Export								
Depreciation	0.4	0.5	0.8	3.1	2.5	3.1	2.5	
Gross Property Additions	1.1	1.2	0.8	12.9	2.1	12.9	2.3	
Gross Property Retirements	-	0.1	0.1	0.1	0.1	0.1	0.1	
Fixed Capital	8.6	11.4	22.1	30.7	34.9	33.8	37.4	
Working Capital	7.0	10.8	11.4	9.4	13.3	9.5	13.4	
Gross Investment	15.6	22.2	33.5	40.1	48.2	43.3	50.8	
Avg. Selling Price Unit (Merchant)	.226	.283	.302	.314	.326	.314	.326	
Avg. Cost Unit	.175	.226	.298	.212	.221	.212	.222	
Total Production - MM Units	112.7	90.2	107.6	111.8	142.1	111.8	141.1	
Total Capacity - MM Units	109.3	127.0	123.4	229.6	236.4	229.6	236.4	
Percent Utilization - %	103.1	71.0	87.5	48.7	62.1	48.7	62.1	
Merchant Sales - MM Units	118.3	102.1	114.6	122.1	154.0	122.1	154.0	
Intercompany Sales - MM Units	-	-	19.2	17.7	25.3	17.7	25.3	
Total - MM Units	118.3	102.1	133.8	139.8	179.3	139.8	179.3	
Market Share (MM) - %	100	100	100	100	100	100	100	
Ex-U.S.A.								
Depreciation	0.4	0.3	0.3	0.4	0.6	0.4	0.6	
Gross Property Additions	0.7	0.5	0.4	2.8	2.0	2.8	2.0	
Gross Property Retirements	-	-	-	-	-	-	-	
Fixed Capital	6.8	7.3	7.7	10.5	12.5	10.5	12.5	
Working Capital	7.3	5.7	6.0	8.7	10.4	8.7	10.4	
Gross Investment	14.1	13.0	13.7	19.2	22.9	19.4	22.9	
Avg. Selling Price Unit (Merchant)	.311	.298	.288	.318	.341	.318	.341	
Avg. Cost Unit	.235	.226	.221	.258	.272	.258	.272	
Total Production - MM Units	83.5	55.4	74.8	63.6	65.9	63.6	61.9	
Total Capacity - MM Units	100.8	95.2	96.6	183.2	104.6	103.2	104.6	
Percent Utilization - %	82.8	58.2	77.4	62.6	64.0	61.6	64.0	
Merchant Sales - MM Units	81.9	67.2	74.5	75.8	78.1	75.8	78.1	
Intercompany Sales - MM Units	6.7	4.0	6.8	5.2	5.4	5.2	5.4	
Total - MM Units	88.6	71.2	81.3	81.1	83.5	81.1	83.5	
Market Share (MM) - %	76	73	75	75	75	75	75	

COMMENTS:

The Benzyl Phthalate Family consists primarily of Santicizer 160, Butyl Benzyl Phthalate, and analogs using other alcohols. S-160 has become the product of choice in the manufacture of vinyl asbestos tile and cushion flooring. The major competitor in this market is DOP. Monsanto has historically maintained a 45-50% plasticizer market share in these industries with Benzyl Phthalate while pricing a 5-10% premium versus DOP. The second largest use for S-160 is in vinyl acetate adhesives where Monsanto has a 36-38% market share, with a 19% price premium over DOP. To support this growth, Monsanto has constructed a new plasticizer 160 facility at W.G. Baumgardner which started up in November 1977. The current major customer list includes Armstrong Cork, Congoleum Industries, Kestite, Harrington Hills, National Starch, and W.R. Fuller. Domestically, Benzyl Phthalate competes on an inter-product basis with DOP from BASF, W.R. Grace, and Benoflex 988 from Valspar. In Europe and ROW areas, S-160 competes directly with BAP from Bayer and Montedison.

0682138

MODAFLOW

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	2.2	1.9	3.0	3.2	3.9
Gross Profit	2.0	1.4	2.3	2.4	2.7
MAT	0.2	0.2	0.3	0.3	0.3
Performance Income	1.8	1.2	2.1	2.1	2.4
Net Income	1.0	0.7	1.2	1.1	1.2
Capital Employed	0.9	0.8	1.5	1.8	2.2
% ROC	111.1	87.5	80.0	61.1	54.5
As a % of Sales:					
Gross Profit	90.9	73.7	76.7	75.0	69.2
MAT	9.1	10.5	10.0	9.4	7.7
Performance Income	81.8	63.2	70.0	65.6	61.5
Net Income	45.5	36.8	40.0	34.4	30.8
U.S. and Export					
Sales	2.2	1.9	3.0	3.2	3.9
Gross Profit	2.0	1.4	2.3	2.4	2.7
MAT	0.2	0.2	0.3	0.3	0.3
Performance Income	1.8	1.2	2.1	2.1	2.4
Net Income	1.0	0.7	1.2	1.1	1.2
Capital Employed	0.9	0.8	1.5	1.8	2.2
% ROC	111.1	87.5	80.0	61.1	54.5
As a % of Sales:					
Gross Profit	90.9	73.7	76.7	75.0	69.2
MAT	9.1	10.5	10.0	9.4	7.7
Performance Income	81.8	63.2	70.0	65.6	61.5
Net Income	45.5	36.8	40.0	34.4	30.8
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Nitro 2.2 million pounds

0683139

MODAFLOW
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	0.1	-	-	-
Fixed Capital	2.6	0.6	0.5	0.7	0.6
Working Capital	3.7	0.6	1.3	1.6	2.0
Gross Investment	1.3	1.2	1.8	2.3	2.6
Avg. Selling Price/Unit (Merchant)	3.667	3.800	3.539	3.444	3.720
Avg. Cost/Unit	.500	1.000	.787	.889	1.134
Total Production - MM Units	3.8	0.3	1.1	1.1	1.0
Total Capacity - MM Units	3.9	1.9	2.4	1.4	2.2
Percent Utilization - %	84.9	15.8	45.8	78.6	45.5
Merchant Sales - MM Units	3.6	0.5	0.8	0.9	1.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.6	0.5	0.8	0.9	1.0
Market Share (MM) - %	83	75	70	80	80
U.S. & Export					
Depreciation	-	-	-	-	-
Gross Property Additions	-	0.1	-	-	-
Gross Property Retirements	-	0.6	0.5	0.7	0.6
Fixed Capital	2.6	0.6	1.3	1.6	2.0
Working Capital	0.7	0.6	1.3	1.6	2.0
Gross Investment	1.3	1.2	1.8	2.3	2.6
Avg. Selling Price/Unit (Merchant)	3.667	3.800	3.539	3.444	3.720
Avg. Cost/Unit	.500	1.000	.787	.889	1.134
Total Production - MM Units	0.8	0.3	1.1	1.1	1.0
Total Capacity - MM Units	0.9	1.9	2.4	1.4	2.2
Percent Utilization - %	84.9	15.8	45.8	78.6	45.5
Merchant Sales - MM Units	0.8	0.5	0.8	0.9	1.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.8	0.5	0.8	0.9	1.0
Market Share (MM) - %	83	75	70	80	80
Ex-SUBA					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:
Based on the total usage of functionally similar flow aids, Momenta's Modaflow product line currently maintains a market share of approximately 80%. However, competitors have recently accelerated their efforts to market similar products. The annual growth rate for existing uses is approximately 10%. This could increase to 15% overall depending upon the success achieved in the food and beverage can lining market. Significant price increases were effected in late 1977 and early 1978 to compensate for cost increases and to maintain the allowable margins on these products. These price increases will also test both the price elasticity and the competitive posture of Modaflow.

0683140

ALCOHOLS & DERIVATIVES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	8.0	6.9	6.3	8.2	9.1
Gross Profit	3.2	1.0	1.0	1.0	1.3
MAT	0.2	0.3	0.2	0.5	0.4
Performance Income	3.0	0.6	0.7	0.5	0.9
Net Income	1.7	0.3	0.3	0.3	0.4
Capital Employed	5.3	6.2	4.1	5.0	4.7
% ROC	32.1	4.8	7.3	6.0	8.5
As a % of Sales:					
Gross Profit	40.0	14.5	15.9	12.2	14.3
MAT	2.5	4.3	3.2	6.1	4.4
Performance Income	37.5	8.7	11.1	6.1	9.9
Net Income	21.3	4.3	4.8	3.7	4.4
U.S. and Export					
Sales	8.0	6.9	6.3	8.2	9.1
Gross Profit	3.2	1.0	1.0	1.0	1.3
MAT	0.2	0.3	0.2	0.5	0.4
Performance Income	3.0	0.6	0.7	0.5	0.9
Net Income	1.7	0.3	0.3	0.3	0.4
Capital Employed	5.3	6.2	4.1	5.0	4.7
% ROC	32.1	4.8	7.3	6.0	8.5
As a % of Sales:					
Gross Profit	40.0	14.5	15.9	12.2	14.3
MAT	2.5	4.3	3.2	6.1	4.4
Performance Income	37.5	8.7	11.1	6.1	9.9
Net Income	21.3	4.3	4.8	3.7	4.4
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Texas City 235.2 million pounds

0682141

ALCOHOLS & DERIVATIVES
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.1	0.2	0.1	0.3	0.2
Gross Property Additions	0.2	0.1	-	-	0.9
Gross Property Retirements	-	-	-	-	-
Fixed Capital	3.2	3.8	2.6	2.9	3.7
Working Capital	3.7	4.6	3.1	4.0	3.2
Gross Investment	6.9	8.4	5.7	6.9	6.9
Avg. Selling Price/Unit (Merchant)	.191	.209	.237	.230	.264
Avg. Cost/Unit	.113	.168	.194	.209	.223
Total Production - MM Units	198.4	166.2	195.2	199.8	215.7
Total Capacity - MM Units	189.0	235.2	235.2	238.2	235.2
Percent Utilization - %	105.0	70.7	83.0	83.5	91.7
Merchant Sales - MM Units	8.0	6.9	27.1	34.1	25.3
Intercompany Sales - MM Units	-	-	-	0.3	9.5
Total - MM Units	8.0	6.9	27.1	34.4	34.8
Market Share (MT) - %	-	-	-	-	-
U.S. & Export					
Depreciation	0.1	0.2	0.1	0.3	0.2
Gross Property Additions	0.2	0.1	-	-	0.9
Gross Property Retirements	-	-	-	-	-
Fixed Capital	3.2	3.8	2.6	2.9	3.7
Working Capital	3.7	4.6	3.1	4.0	3.2
Gross Investment	6.9	8.4	5.7	6.9	6.9
Avg. Selling Price/Unit (Merchant)	.191	.209	.237	.230	.264
Avg. Cost/Unit	.113	.168	.194	.209	.223
Total Production - MM Units	198.4	166.2	195.2	199.8	215.7
Total Capacity - MM Units	189.0	235.2	235.2	238.2	235.2
Percent Utilization - %	105.0	70.7	83.0	83.5	91.7
Merchant Sales - MM Units	8.0	6.9	27.1	34.1	25.3
Intercompany Sales - MM Units	-	-	-	0.3	9.5
Total - MM Units	8.0	6.9	27.1	34.4	34.8
Market Share (MT) - %	-	-	-	-	-
EXTRA					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MT) - %	-	-	-	-	-

COMMENTS:

Domestically, this product group is composed primarily of Diisodecyl Phthalate (DDP) and of Heavy Oxo Ends (a by-product from the oxo unit). In export, linear primary oxo alcohols for support of NOCAN ester production and for merchant sales are incorporated into this group. DDP is a domestic proprietary plasticizer used in vinyl insulation for power cable where high temperatures are prevalent. HDE is sold to the petroleum industry for use in tertiary oil recovery. Budgeted Performance Income improvement for 1978 reflects price increase on both sales to customers and on alcohol transfers to NOCAN, with little volume gain in either avenue.

0683142

BENZYL CHLORIDE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	6.3	4.6	7.4	7.6	9.1
Gross Profit	1.9	2.0	2.9	3.6	3.9
MAT	-	-	0.1	-	0.1
Performance Income	1.7	1.9	2.7	3.4	3.6
Net Income	0.9	1.0	1.4	1.8	1.8
Capital Employed	2.2	2.1	1.9	1.7	2.5
% ROC	40.9	47.6	73.7	105.9	72.0
As a % of Sales:					
Gross Profit	30.2	43.5	39.2	47.4	42.9
MAT	-	-	1.4	-	1.1
Performance Income	27.0	41.3	36.5	44.7	39.6
Net Income	14.3	21.7	18.9	23.7	19.8
U.S. and Export					
Sales	6.3	4.6	7.4	7.6	9.1
Gross Profit	1.9	2.0	2.9	3.6	3.9
MAT	-	-	0.1	-	0.1
Performance Income	1.7	1.9	2.7	3.4	3.6
Net Income	0.9	1.0	1.4	1.8	1.8
Capital Employed	2.2	2.1	1.9	1.7	2.5
% ROC	40.9	47.6	73.7	105.9	72.0
As a % of Sales:					
Gross Profit	30.2	43.5	39.2	47.4	42.9
MAT	-	-	1.4	-	1.1
Performance Income	27.0	41.3	36.5	44.7	39.6
Net Income	14.3	21.7	18.9	23.7	19.8
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Delaware River 99.6 million pounds
 Krummrich 75.0 million pounds

0682143

BENZYL CHLORIDE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.2	0.2	-	0.2	0.1
Gross Property Additions	0.2	0.4	0.1	2.6	0.1
Gross Property Retirements	0.1	-	-	-	-
Fixed Capital	3.0	4.3	2.7	1.0	3.8
Working Capital	0.3	-	0.3	1.0	0.2
Gross Investment	4.1	4.3	3.0	2.8	4.0
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost Unit	.115	.113	.135	.132	.155
Total Production - MM Units	86.8	61.8	79.0	78.6	95.4
Total Capacity - MM Units	99.6	99.6	99.6	174.6	174.6
Percent Utilization - %	86.3	62.0	79.3	45.0	54.6
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	37.9	23.0	33.2	30.4	33.9
Total - MM Units	37.9	23.0	33.2	30.4	33.9
Market Share (M.D. - %)	85	85	85	85	85
U.S. & Export					
Depreciation	0.2	0.2	-	0.2	0.1
Gross Property Additions	0.2	0.4	0.1	2.6	0.1
Gross Property Retirements	0.1	-	-	-	-
Fixed Capital	3.0	4.3	2.7	1.0	3.8
Working Capital	0.3	-	0.3	1.0	0.2
Gross Investment	4.1	4.3	3.0	2.8	4.0
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost Unit	.146	.133	.135	.132	.155
Total Production - MM Units	86.8	61.8	79.0	78.6	95.4
Total Capacity - MM Units	99.6	99.6	99.6	174.6	174.6
Percent Utilization - %	86.3	62.0	79.3	45.0	54.6
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	37.9	23.0	33.2	30.4	33.9
Total - MM Units	37.9	23.0	33.2	30.4	33.9
Market Share (M.D. - %)	85	85	85	85	85
Excluded					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (M.D. - %)	-	-	-	-	-

COMMENTS:

The primary purpose for Benzyl Chloride manufacture is as a Santicizer 160 raw material. This outlet consumes about 55% of Monsanto's Benzyl Chloride production. Benzyl Chloride is also used internally to produce Santocool 100, Aroma Chemicals, and Santophen 1. These uses consume about 10% of Monsanto's Benzyl Chloride production. External sales of the remaining 35% are used for a variety of end use applications, including textile dye carriers, penicillin precursor, and Aroma solvents. A new 75 million pound production facility came on stream at the W.G. Krumwirth plant in November 1977 to support the new Santicizer 160 facility.

0683144

PHOSPHATE ESTERS
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital					Sep-thru	
	Actual				Budget	Actual	Budget
	1974	1975	1976	1977		1977	1978
World-Wide							
Sales	14.2	14.7	14.8	17.1	20.5	17.1	20.5
Gross Profit	4.5	3.8	2.1	2.6	2.3	4.1	3.8
MAT	0.5	0.8	0.6	1.0	1.2	1.1	1.3
Performance Income	3.6	2.7	1.3	1.4	0.7	2.4	2.0
Net Income	1.8	1.3	0.6	0.6	0.2	1.4	0.8
Capital Employed	8.6	10.3	10.0	11.7	11.2	13.9	13.8
% ROC	20.9	12.6	6.0	5.1	1.8	10.1	5.8
As a % of Sales:							
Gross Profit	31.7	25.9	14.2	15.2	11.2	24.0	18.5
MAT	3.5	5.4	4.1	5.8	5.9	6.4	6.3
Performance Income	25.4	18.4	8.8	8.2	3.4	14.0	9.8
Net Income	12.7	8.8	4.1	3.5	1.0	8.2	5.8
U.S. and Export							
Sales	14.2	14.7	14.2	14.3	16.2	14.3	16.2
Gross Profit	4.5	4.0	2.6	2.4	2.1	3.9	3.6
MAT	0.5	0.8	0.6	0.8	0.8	0.9	0.9
Performance Income	3.6	2.9	1.8	1.4	1.0	2.4	2.3
Net Income	1.8	1.4	0.9	0.6	0.4	1.4	1.0
Capital Employed	8.2	8.3	7.3	8.5	8.8	10.7	11.4
% ROC	22.0	16.9	12.3	7.1	4.5	13.1	8.8
As a % of Sales:							
Gross Profit	31.7	27.2	18.3	16.8	13.0	27.3	22.2
MAT	3.5	5.4	4.2	5.6	4.9	6.3	5.6
Performance Income	25.4	19.7	12.7	9.8	6.2	16.8	14.2
Net Income	12.7	9.5	6.3	4.2	2.5	9.8	6.2
Ex-U.S.A.							
Sales	-	-	0.6	2.8	4.3	2.8	4.3
Gross Profit	-	(0.2)	(0.5)	0.2	0.2	0.2	0.2
MAT	-	-	-	0.2	0.4	0.2	0.4
Performance Income	-	(0.2)	(0.5)	-	(0.3)	-	(0.3)
Net Income	-	(0.1)	(0.3)	-	(0.2)	-	(0.2)
Capital Employed	0.4	2.0	2.7	3.2	2.4	3.2	2.4
% ROC	-	-	-	-	-	-	-
As a % of Sales:							
Gross Profit	-	-	-	7.1	4.6	7.1	4.6
MAT	-	-	-	7.1	9.3	7.1	9.3
Performance Income	-	-	-	-	-	-	-
Net Income	-	-	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Delaware River 33.0 million pounds
Krummrich 42.7 million pounds
Newport 11.8 million pounds

0683145

PHOSPHATE ESTERS
AMOUNTS IN MILLIONS

	Transfer Price/Cost & Capital				See Para	
	Actual			Budget 1978	Actual 1977	Budget 1978
	1974	1975	1976			
Worldwide						
Depreciation	0.4	0.4	0.7	0.9	0.9	0.9
Gross Property Additions	0.9	2.1	1.6	0.8	0.8	1.3
Gross Property Retirements	-	-	0.1	0.1	0.1	-
Fixed Capital	9.5	10.3	10.0	11.8	14.4	15.1
Working Capital	5.2	4.6	4.0	6.1	6.9	7.2
Gross Investment	14.7	14.9	14.0	17.9	21.3	22.2
Avg. Selling Price/Unit (Merchant)	.450	.579	.613	.668	.717	.717
Avg. Cost/Unit	.303	.424	.577	.571	.636	.584
Total Production - MM Units	31.4	22.7	22.8	22.5	22.5	26.5
Total Capacity - MM Units	57.1	63.2	70.3	70.9	70.9	71.7
Percent Utilization - %	55.0	35.9	29.1	31.7	31.7	37.0
Merchant Sales - MM Units	29.2	21.7	21.0	22.9	22.9	26.5
Intercompany Sales - MM Units	2.7	3.5	2.9	2.5	2.5	2.1
Total - MM Units	31.9	25.2	23.9	25.4	25.4	28.6
Market Share (MI) - %	14	10	8	9	9	9
U.S. & Export						
Depreciation	0.4	0.4	0.5	0.6	0.6	0.6
Gross Property Additions	0.5	0.5	0.7	0.9	1.0	1.0
Gross Property Retirements	-	-	0.1	0.1	0.1	-
Fixed Capital	9.1	8.3	7.1	8.9	9.1	12.1
Working Capital	5.2	4.6	3.9	5.1	5.9	6.7
Gross Investment	14.3	12.9	11.0	14.0	17.4	18.8
Avg. Selling Price/Unit (Merchant)	.450	.579	.614	.691	.691	.754
Avg. Cost/Unit	.303	.424	.505	.578	.656	.583
Total Production - MM Units	31.4	22.7	20.8	18.2	18.2	20.4
Total Capacity - MM Units	57.1	63.2	65.1	57.9	57.9	59.9
Percent Utilization - %	55.0	35.9	32.0	31.4	31.4	33.7
Merchant Sales - MM Units	29.2	21.7	20.0	18.1	18.1	19.5
Intercompany Sales - MM Units	2.7	3.5	2.9	2.5	2.5	2.1
Total - MM Units	31.9	25.2	22.9	20.6	20.6	21.6
Market Share (MI) - %	14	10	16	17	17	18
Ex-U.S.A.						
Depreciation	-	-	0.2	0.3	0.3	0.3
Gross Property Additions	0.4	1.6	0.9	-	0.1	0.1
Gross Property Retirements	-	-	-	-	-	-
Fixed Capital	0.4	2.0	2.9	2.9	2.9	3.0
Working Capital	-	-	0.1	1.0	1.0	0.4
Gross Investment	0.4	2.0	3.0	3.9	3.9	3.4
Avg. Selling Price/Unit (Merchant)	-	-	.600	.583	.583	.614
Avg. Cost/Unit	-	-	1.100	.542	.542	.586
Total Production - MM Units	-	-	2.0	4.3	4.3	6.3
Total Capacity - MM Units	-	-	13.2	13.0	13.0	11.8
Percent Utilization - %	-	-	15.2	33.1	33.1	53.4
Merchant Sales - MM Units	-	-	1.0	4.8	4.8	7.0
Intercompany Sales - MM Units	-	-	-	-	-	-
Total - MM Units	-	-	1.0	4.8	4.8	7.0
Market Share (MI) - %	-	-	1	12	12	14

COMMENTS:

Monsanto's line of phosphate esters includes alkyl aryl and triaryl phosphates. Alkyl aryl phosphates are proprietary compounds while triaryl phosphates are also produced by Stauffer and FMC. Phosphate esters perform the dual function of plasticization and flame retardancy. Alkyl aryl phosphates are produced at Bridgeport, New Jersey and Newport, U.K. Triaryl phosphates are produced at Sauge, Illinois. Displacements in the growth curve of phosphate esters in recent years results from: 1) elimination of phosphates as gasoline additives; 2) discontinuance of two products, CBP and TCP, because of toxicity considerations. Use of phosphate esters as plasticizer/flame retardant additives is expected to grow at 10%/year over the next five years as more products are required to comply with federal, state, and local regulations concerning flammability characteristics. Phosphate esters are used in a variety of end markets including insulation facing, carpet underlayment, pipe insulation, wall coverings, mine belting, packaging and air filters.

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PLASTICIZERS DIVISION
Minor Products/Eliminations
 AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	57.4	65.1	68.4
Gross Profit	9.9	9.6	8.7
MAT	2.8	2.9	3.5
Performance Income	6.1	5.7	4.0
Net Income	3.0	2.7	1.6
Capital Employed	28.4	32.2	48.5
% PROC	10.6	8.4	3.3
Fixed Capital	29.0	31.8	46.9
Working Capital	21.2	22.2	22.5
U.S. & Export			
Sales	48.0	56.7	56.7
Gross Profit	9.2	9.2	8.2
MAT	2.1	2.3	2.9
Performance Income	6.3	6.1	4.3
Net Income	3.2	3.1	2.0
Capital Employed	24.3	28.9	30.1
% PROC	13.2	10.7	6.6
Fixed Capital	27.4	29.8	28.8
Working Capital	17.2	19.6	20.5
Ex-U.S.A.			
Sales	9.4	8.4	11.7
Gross Profit	0.7	0.4	0.5
MAT	0.7	0.6	0.6
Performance Income	(0.2)	(0.4)	(0.3)
Net Income	(0.2)	(0.4)	(0.4)
Capital Employed	4.1	3.3	18.4
% PROC	-	-	-
Fixed Capital	1.6	2.0	18.1
Working Capital	4.0	2.6	2.0

Form IV

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MONSANTO PLASTICS & RESINS CO.

0683148

ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

0683149

MONSANTO PLASTICS & RESINS COMPANY

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978 (a)
<u>World-Wide</u>					
Sales	721.0	678.8	923.8	1020.4	1087.1
Gross Profit	183.9	103.7	177.6	169.1	172.5
MAT	48.3	55.5	64.7	77.0	85.5
Performance Income	128.8	38.2	103.2	79.6	72.3
Net Income	59.6	16.8	47.7	34.4	27.7
Capital Employed	482.0	523.1	643.2	728.4	823.8
% ROC	12.4	3.2	7.4	4.7	3.4
<u>U.S. and Export</u>					
Sales	529.8	493.6	648.5	721.0	750.8
Gross Profit	143.1	93.3	141.7	139.7	138.1
MAT	38.9	43.3	47.9	55.6	62.5
Performance Income	101.8	44.9	89.8	79.5	70.3
Net Income	46.8	21.1	42.9	37.0	29.5
Capital Employed	357.0	379.3	446.4	505.3	548.7
% ROC	13.1	5.6	9.6	7.3	5.4
<u>Ex-U.S.A.</u>					
Sales	191.2	185.2	275.3	299.4	336.3
Gross Profit	40.8	10.4	35.9	29.4	34.4
MAT	9.4	12.2	16.8	21.4	23.0
Performance Income	27.0	(6.7)	13.4	0.1	2.0
Net Income	12.8	(4.3)	4.8	(2.6)	(1.8)
Capital Employed	125.0	143.8	196.8	223.1	274.3
% ROC	10.2	-	2.4	-	-

(a) Cycle-Safe included in 1978 budget only.

0603150

MONSANTO PLASTICS & RESINS COMPANY
MAJOR PRODUCT DATA BOOK

	<u>Forms</u>
<u>Table of Contents</u>	
Monsanto Plastics & Resins Company	1
Worldwide Capital Employed by ROC Grouping	2
Worldwide Product Net Cash Flow Analysis	3
Worldwide Capital Employed by Major Product	4
Summary of Capital Employed at a Loss	5
Major Product Listing by Capital Employed and ROC Grouping	6
 <u>Plastics Division</u>	
Lustrex	II-A, II-B
Lustran	III-A, III-B
Vydyne	III-A, III-B
Fome-Cor	III-A, III-B
Expandable Polystyrene	III-A, III-B
High Density Polyethylene✓	III-A, III-B
Minor Plastics	IV
 <u>Resin Products Division</u>	
Saflex Product Group	II-A, II-B
Resins Product Group	III-A, III-B
 <u>Fabricated Products Division</u>	
Blownware	II-A, II-B
CIM	III-A, III-B
Film	III-A, III-B
Recreational Products	III-A, III-B
Minor Products	IV
 <u>Cycle-Safe</u>	
	II-A, II-B

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WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
(Amounts in Millions)

MP&RC-2

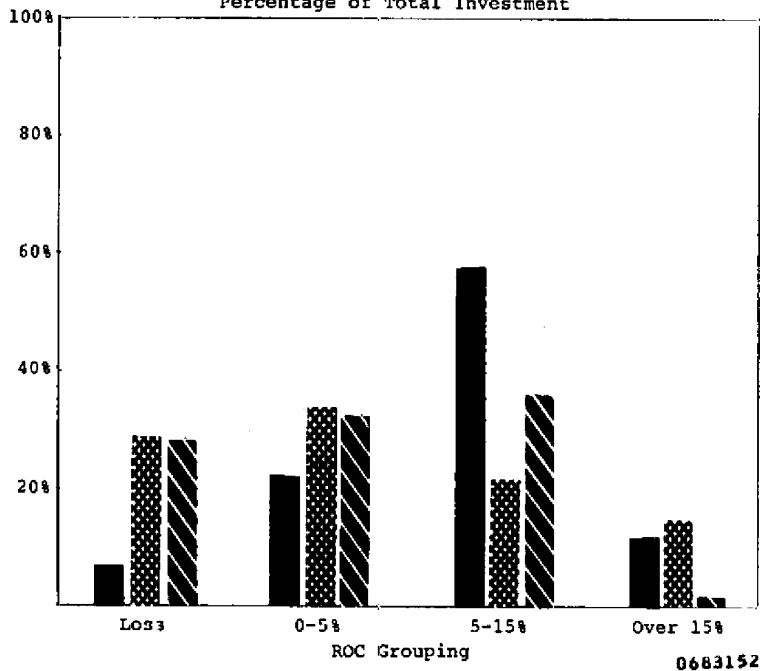
Dollar Investment

1976	\$ 46.9	\$145.6	\$371.8	\$ 78.9	\$643.2
1977	212.9	249.3	156.4	109.8	728.4
1978 Budget	238.1	272.3	303.5	9.9	823.8

ROC Grouping Loss 0-5% 5-15% Over-15% Total

1976 
1977 
1978 Budget 

Percentage of Total Investment



WORLDWIDE PRODUCT NET CASH FLOW ANALYSIS
(Amounts in Millions)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u> Budget (a)
<u>Total MP&R Company</u>					
Net Income After Tax	59.6	16.8	47.7	34.4	27.7
Change in Capital Employed	(98.7)	(41.1)	(120.1)	(85.2)	(95.4)
Net Cash Flow	(39.1)	(24.3)	(72.4)	(50.8)	(67.7)
<u>Plastics Division</u>					
Net Income After Tax	30.2	0.9	18.8	3.9	2.3
Change in Capital Employed	(70.1)	(35.1)	(97.3)	(67.3)	(57.6)
Net Cash Flow	(39.9)	(34.2)	(78.5)	(63.4)	(55.3)
<u>Resins Division</u>					
Net Income After Tax	22.5	14.5	27.5	27.5	22.6
Change in Capital Employed	(18.1)	(10.9)	(22.7)	(25.9)	(24.5)
Net Cash Flow	4.4	3.6	4.8	1.6	(1.9)
<u>Fabricated Products Division</u>					
Net Income After Tax	6.9	1.4	1.4	3.0	2.8
Change in Capital Employed	(10.5)	4.9	(0.1)	8.0	(13.3)
Net Cash Flow	(3.6)	6.3	1.3	11.0	(10.5)

(a) Cycle-Safe included in 1978 budget only.

0683153

WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT
(Amounts in Millions)

MP&RC-4

	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
<u>Division</u>						
Plastics	\$412.7	4.6%	\$480.0	0.8%	\$537.6	0.4%
Resins	168.0	16.4	193.9	14.2	218.4	10.4
Fabricated Products	62.5	2.2	54.5	5.5	67.8(a)	4.1
Total MP&RC	<u>\$643.2</u>	7.4%	<u>\$728.4</u>	4.7%	<u>\$823.8</u>	3.4%
<u>Major Products</u>						
Lustran	\$190.6	7.0%	\$226.3	4.2%	\$265.3	2.9%
ustrex	131.1	1.2	155.7	-	174.4	-
aflex	78.9	18.9	98.2	17.9	113.8	12.5
Resins	89.1	14.1	95.7	10.3	104.6	8.0
Blownware	32.0	10.9	31.3	9.9	35.7	7.8
Vydyne	19.4	12.4	29.4	11.6	31.0	10.7
EPS	30.9	-	25.6	-	24.5	-
HDPE	22.9	7.4	22.2	-	21.4	-
Film	14.5	3.5	14.9	4.7	14.1	5.7
Fome-Cor	8.4	12.4	11.6	28.5	9.9	29.3
Rec. Products	6.8	-	4.9	4.1	7.0	4.3
CIM	4.8	-	3.2	3.1	4.3	11.6
Cycle-Safe (a)	-	-	-	-	6.7	-
All Other	13.8	-	9.4	-	11.1	-
Total	<u>\$643.2</u>	7.4%	<u>\$728.4</u>	4.7%	<u>\$823.8</u>	3.4%

(a) Cycle-Safe included in 1978 Budget only.

0683154

MP&RC-5

SUMMARY OF CAPITAL EMPLOYED AT A LOSS
(Amounts in Millions)

<u>1977 Capital Employed</u>	<u>Major Product</u>	<u>1977 Net Income Loss</u>
\$155.7	Lustrex	\$(5.8)
25.6	Expandable Polystyrene	(5.2)
22.2	High Density Polyethylene	(0.5)
9.4	Minor Products	(1.9)

0603155

MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED & ROC GROUPING - 1977
(Amounts in Millions)

NET INCOME RETURN ON CAPITAL

CAPITAL EMPLOYED	LOSS	0 - 5%	5 - 15%	OVER 15%
Over \$50	LX \$155.7	LN \$226.3 4.2%	Resins \$ 95.7 10.3%	Saflex \$ 98.2 17.9%
\$25 - \$50	EPS \$ 25.6		Blowware \$31.3 9.9% Vodyne \$29.4 11.6%	
\$10 - \$25	HDPE \$ 22.2	Film \$ 14.9 4.7%		Fome-Cor \$11.6 28.5%
\$5 - \$10		Rec. Prod. \$ 4.9 4.1% CIM \$ 3.2 3.1%		
Under \$5	Other Prod. \$ 9.4			
Total Capital Employed \$728.4	\$212.9	\$249.3	\$156.4	\$109.8

0683156

MF 8 RC-6

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	388.0	362.0	525.0	599.4	649.3
Gross Profit	88.9	36.0	81.2	66.5	69.6
MAT	22.5	25.8	32.0	42.5	45.2
Performance Income	65.5	6.3	44.9	18.1	16.7
Net Income	30.2	0.9	18.8	3.9	2.3
Capital Employed	280.3	315.4	412.7	480.0	537.6
% ROC	1.1	0.3	4.6	0.8	0.4
As a % of Sales:					
Gross Profit	22.9	9.9	15.5	11.1	10.7
MAT	5.8	7.1	6.1	7.1	7.0
Performance Income	16.9	1.7	8.6	3.0	2.6
Net Income	7.8	0.3	3.6	0.7	0.4
U.S. and Export					
Sales	223.2	201.1	287.6	343.9	360.5
Gross Profit	58.1	30.9	57.4	48.6	46.9
MAT	15.2	16.6	19.6	26.3	28.4
Performance Income	45.6	14.6	38.2	22.6	18.8
Net Income	21.0	6.2	17.3	9.0	6.0
Capital Employed	181.1	198.4	242.6	290.5	313.0
% ROC	11.6	3.1	7.1	3.1	0.2
As a % of Sales:					
Gross Profit	26.0	15.4	20.0	14.1	13.0
MAT	6.8	8.3	6.8	7.7	7.9
Performance Income	20.4	7.3	13.3	6.6	5.2
Net Income	9.4	3.1	6.0	2.6	1.7
Ex-U.S.A.					
Sales	164.8	160.9	237.4	255.5	288.8
Gross Profit	30.8	5.1	23.8	17.9	22.7
MAT	7.3	9.2	12.4	16.2	16.8
Performance Income	19.9	(8.3)	6.7	(4.5)	(2.1)
Net Income	9.2	(5.3)	1.5	(5.1)	(3.7)
Capital Employed	99.2	117.0	170.1	189.5	224.6
% ROC	9.3	-	0.9	-	-
As a % of Sales:					
Gross Profit	18.7	3.2	10.0	7.0	7.9
MAT	4.4	5.7	5.2	6.3	5.8
Performance Income	12.1	-	2.8	-	-
Net Income	5.6	-	0.6	-	-

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PLASTICS DIVISION
AMOUNTS IN MILLIONS

MP&RC-3

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation				19.1	26.1
Gross Property Additions				48.6	62.6
Gross Property Retirements				7.0	0.1
Fixed Capital				507.3	579.1
Working Capital				211.9	226.8
Gross Investment	473.3	518.2	621.5	719.2	805.9
U.S. & Export					
Depreciation				11.3	17.1
Gross Property Additions				28.1	24.8
Gross Property Retirements				7.0	0.1
Fixed Capital				336.6	369.9
Working Capital				119.1	127.7
Gross Investment	329.2	351.8	389.1	455.7	497.6
Ex-U.S.A.					
Depreciation				7.8	9.0
Gross Property Additions				20.5	37.8
Gross Property Retirements				-	-
Fixed Capital				170.7	209.2
Working Capital				92.8	99.1
Gross Investment	144.1	166.4	232.4	263.5	308.3

COMMENTS:

The Plastics Division manufactures and markets thermoplastic resins. The product lines comprising today's business are polystyrene, expandable polystyrene, ABS, low and high density polyethylene, and nylon. These materials are used for a wide variety of molded and extruded products for the automotive, construction, appliance, packaging, houseware, etc. industries. Free world plastics usage is estimated to grow 7%/year, about one-half the 15%/year growth rate of the 1960's and early 70's due to slower economic growth rates in the world's developed economies and the relatively high saturation of metal, glass, wood, and paper replacement opportunities.

The strategic thrust of current product line business is: Aggressive expansion of ABS in each world area in which we currently operate; operating to maximize cash flow in low density polyethylene Europe, high density polyethylene U.S., polystyrene Europe, expandable polystyrene Europe; aggressive expansion of nylon U.S.; maximize long term profitability of polystyrene U.S.; maintain current major market shares of polystyrene in sheltered economies of Australia, Argentina, Brazil. Significant technology resources are allocated to development of new thermoplastic resins designed to fill gaps in the price/performance spectrum of existing engineering thermoplastics.

Profitability in the non-sheltered major world economies has been poor for several years as a result of severe excess polymerization and petrochemical based monomer capacity in the high volume commodity product lines. Resultant pricing has been under continual pressure as integrated producers sought to improve facility utilization throughout the feedstock cracking to polymer chain. These pressures on price will continue for several years until the slowing market growth rates bring demand into better balance with capacity.

The Division emphasis on higher performance plastic resins for growth allocates resources to areas with less impact from incremental integrated economics and to product lines with higher polymerization step value added, i.e., ABS, nylon, new thermoplastics. These materials also have higher market growth rates as the replacement saturation phenomenon is not as advanced. The strategic direction leads to a business portfolio in the 80's with substantially improved potential over today's business mix.

0683158

LUSTREX
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	138.5	128.8	190.0	212.9	224.1
Gross Profit	21.4	7.5	18.8	8.0	8.2
MAT	6.6	7.9	10.3	12.9	12.9
Performance Income	14.3	(2.0)	6.0	(7.1)	(8.4)
Net Income	6.6	(2.4)	1.6	(5.8)	(6.4)
Capital Employed	99.5	100.2	131.1	155.7	174.4
% ROC	6.6	-	1.2	-	-
As a % of Sales:					
Gross Profit	15.5	5.8	9.9	3.8	3.7
MAT	4.8	6.1	5.4	6.1	5.8
Performance Income	10.3	-	3.2	-	-
Net Income	4.8	-	0.8	-	-
U.S. and Export					
Sales	72.9	67.8	85.6	96.1	98.3
Gross Profit	12.0	5.0	14.0	3.5	2.5
MAT	4.1	4.9	4.7	5.4	5.1
Performance Income	8.9	4.0	8.9	(1.7)	(2.8)
Net Income	4.1	1.3	4.0	(1.9)	(2.5)
Capital Employed	66.3	58.9	67.4	81.7	92.3
% ROC	6.2	2.2	5.9	-	-
As a % of Sales:					
Gross Profit	16.5	13.3	16.4	3.6	2.5
MAT	5.6	7.2	5.5	5.6	5.2
Performance Income	12.2	5.9	10.4	-	-
Net Income	5.6	1.9	4.7	-	-
Ex-U.S.A.					
Sales	65.6	61.0	104.4	116.8	125.8
Gross Profit	9.4	(1.5)	4.8	4.5	5.7
MAT	2.5	3.0	5.6	7.5	7.8
Performance Income	5.4	(6.0)	(2.9)	(5.4)	(5.6)
Net Income	2.5	(3.7)	(2.4)	(3.9)	(3.9)
Capital Employed	33.2	41.3	63.7	74.0	82.1
% ROC	7.5	-	-	-	-
As a % of Sales:					
Gross Profit	14.3	-	4.6	3.9	4.5
MAT	3.8	4.9	5.4	6.4	6.2
Performance Income	8.2	-	-	-	-
Net Income	3.8	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1974 Actual	1975 Actual	1976 Actual	1977 Actual	1978 Budget
Decatur, Ala.	- MM lbs	70MM lbs	75MM lbs	74MM lbs	78MM lbs
Long Beach, Cal.	55	58	50	44	44
Addyston, Ohio	72	150	200	230	230
Springfield, Mass.	275	270	160	132	160
Newport, Wales	56	58	40	50	47
Wingles, France	106	108	175	180	174
West Footscray, Aus.	25	25	35	65	87
LaSalle, Canada	42	35	40	122	125
Zarate, Argentina	40	40	30	43	37
Jacareí, Brazil	-	-	57	73	81
Total	671	814	862	1013	1063

0683159

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	5.4	7.8
Gross Property Additions	9.1	10.1	15.7	18.3	11.7
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	147.2	164.6
Working Capital	-	-	-	77.8	86.7
Gross Investment	155.1	152.7	192.4	225.0	251.3
Avg. Selling Price/Unit (Merchant)	.297	.277	.309	.303	.309
Avg. Cost/Unit	.249	.275	.279	.292	.298
Total Production - MM Units	478.8	450.5	441.3	729.5	764.6
Total Capacity - MM Units	671.0	414.0	862.0	1013.7	1063.0
Percent Utilization - %	71	55	74	72	72
Merchant Sales - MM Units	447.3	426.0	588.2	680.2	705.3
Intercompany Sales - MM Units	22.3	15.0	26.3	21.3	20.0
Total - MM Units	469.6	441.0	614.5	701.5	725.3
Market Share (MI) - %	8.8	10.0	12.8	11.8	11.9
U.S. & Export					
Depreciation	-	-	-	2.6	4.4
Gross Property Additions	7.2	2.5	11.3	10.3	4.1
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	84.6	94.5
Working Capital	-	-	-	18.6	44.5
Gross Investment	107.5	76.7	106.1	123.2	139.0
Avg. Selling Price/Unit (Merchant)	.261	.266	.244	.248	.251
Avg. Cost/Unit	.217	.231	.221	.239	.245
Total Production - MM Units	292.4	254.7	329.0	393.0	396.3
Total Capacity - MM Units	472.0	568.0	485.0	480.0	512.0
Percent Utilization - %	73	47	68	82	77
Merchant Sales - MM Units	260.2	241.1	381.6	368.2	374.1
Intercompany Sales - MM Units	22.0	13.6	21.4	18.9	17.3
Total - MM Units	282.2	254.7	403.0	387.1	391.4
Market Share (MI) - %	9.9	11.0	11.8	12.0	12.0
Ex-U.S.A.					
Depreciation	-	-	-	2.8	3.4
Gross Property Additions	1.9	8.3	4.4	4.0	7.2
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	62.6	70.3
Working Capital	-	-	-	39.2	42.2
Gross Investment	47.6	56.0	46.7	101.8	112.3
Avg. Selling Price/Unit (Merchant)	.348	.327	.354	.373	.376
Avg. Cost/Unit	.298	.335	.344	.358	.359
Total Production - MM Units	186.4	155.8	312.3	336.5	368.3
Total Capacity - MM Units	269.0	266.0	377.0	533.7	531.0
Percent Utilization - %	69	71	83	63	67
Merchant Sales - MM Units	187.1	184.9	286.6	311.0	331.5
Intercompany Sales - MM Units	1.3	1.4	3.2	2.4	2.7
Total - MM Units	188.4	186.3	289.8	313.4	334.2
Market Share (MI) - %	7.6	9.0	14.0	11.6	11.7

COMMENTS:

Polystyrene's major markets are packaging, consumer goods, toys/recreational equipment and appliances, with major growth occurring in the packaging markets. Five world usage was approximately 7.5 billion pounds in 1977, and is estimated to grow 6%/year, about one-half the 13% growth rate of the 1960's and early 1970's. Lustrac profitability dropped to a low position in 1977. In 1978, Lustrac (worldwide) is budgeted to regain a low position because of industry over-capacity and resultant low prices.

An aggressive marketing posture is forecast to sell out existing capacity at the earliest possible date consistent with optimizing performance income. Profitability is forecast to improve to the 1974 level in the early 1980's as industry capacity utilization approaches 85%.

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LUSTRAN

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	153.5	147.9	211.0	249.7	282.9
Gross Profit	39.5	19.7	41.7	41.4	41.8
MAT	8.8	9.6	10.8	16.0	17.6
Performance Income	29.6	3.4	29.2	23.1	21.3
Net Income	13.5	3.9	13.3	9.5	7.8
Capital Employed	127.1	153.1	190.6	226.3	265.3
% ROC	10.6	2.6	7.0	4.2	2.9
As a % of Sales:					
Gross Profit	25.7	13.3	19.8	16.6	14.8
MAT	5.7	6.5	5.1	6.4	6.2
Performance Income	19.3	5.7	13.8	9.3	7.5
Net Income	8.8	2.6	6.3	3.8	2.8
U.S. and Export					
Sales	82.7	77.1	115.7	150.4	166.3
Gross Profit	23.9	13.3	25.5	29.8	26.7
MAT	5.3	5.3	6.4	10.2	11.6
Performance Income	19.2	8.6	19.8	20.2	15.7
Net Income	9.0	4.0	9.2	9.1	6.2
Capital Employed	71.3	94.3	114.8	142.0	156.7
% ROC	12.6	4.2	8.0	6.4	4.0
As a % of Sales:					
Gross Profit	28.9	17.3	22.0	19.8	16.1
MAT	6.4	6.9	5.5	6.8	7.0
Performance Income	23.2	11.2	17.1	13.4	9.4
Net Income	10.9	5.2	8.0	6.1	3.7
Ex-U.S.A.					
Sales	70.8	70.8	95.3	99.3	116.6
Gross Profit	15.6	6.4	16.2	11.6	15.1
MAT	3.5	4.3	4.4	5.8	6.0
Performance Income	10.4	(3.2)	9.4	2.9	5.6
Net Income	4.5	(3.1)	4.1	0.4	1.6
Capital Employed	55.8	58.8	75.8	84.3	108.6
% ROC	8.1	-	5.4	0.5	1.5
As a % of Sales:					
Gross Profit	22.0	9.0	17.0	11.7	13.0
MAT	4.9	6.1	4.6	5.8	5.2
Performance Income	14.7	-	9.9	2.9	4.8
Net Income	6.4	-	4.3	0.4	1.4

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1974 Actual	1975 Actual	1976 Actual	1977 Actual	1978 Budget
	- MM lbs	- MM lbs	- MM lbs	5MM lbs	53MM lbs
Springfield, Mass.	325	325	300	280	274
Addyston, Ohio	-	-	90	115	96
Muscantine, Iowa	20	20	30	29	39
Wingles, France	110	110	110	108	127
Antwerp, Belgium	12	10	15	50	71
West Footscray, Aus.	6	12	12	89	93
LaSalle, Canada	35	50	50	50	50
Barnia, Canada	15	15	15	20	22
Zarate, Argentina	20	20	20	23	25
Newport, Wales					
Total	543	562	642	769	850

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	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	-	-	-	8.5	13.7
Gross Property Additions	19.2	22.1	12.7	20.7	47.1
Gross Property Retirements	-	-	-	1.9	-
Fixed Capital	-	-	-	236.2	285.3
Working Capital	-	-	-	84.1	93.5
Gross Investment	184.9	217.4	266.4	320.3	378.8
Avg. Selling Price/Unit (Merchant)	.376	.421	.440	.454	.481
Avg. Cost/Unit	.279	.365	.353	.379	.410
Total Production - MM Units	396.6	355.5	464.0	571.6	616.6
Total Capacity - MM Units	543.0	562.0	642.0	769.3	850.6
Percent Utilization - %	73	63	72	74	73
Merchant Sales - MM Units	408.6	351.0	479.1	549.6	588.5
Intercompany Sales - MM Units	0.1	0.1	0.1	-	-
Total - MM Units	408.7	351.1	479.2	549.6	588.5
Market Share (M/I) - %	24.8	27.0	26.8	29.5	30.6
U.S. & Export					
Depreciation	-	-	-	5.1	9.1
Gross Property Additions	12.6	15.4	6.0	9.7	24.2
Gross Property Retirements	-	-	-	1.9	-
Fixed Capital	91.5	114.6	133.3	164.0	185.2
Working Capital	23.6	25.7	36.3	45.4	51.8
Gross Investment	115.1	140.3	168.4	209.4	238.0
Avg. Selling Price/Unit (Merchant)	.333	.377	.398	.422	.452
Avg. Cost/Unit	.238	.312	.310	.338	.379
Total Production - MM Units	251.7	204.6	301.0	359.0	377.9
Total Capacity - MM Units	325.0	325.0	390.0	400.0	423.0
Percent Utilization - %	77	63	77	90	89
Merchant Sales - MM Units	247.9	204.5	291.0	356.4	367.9
Intercompany Sales - MM Units	0.1	0.1	0.1	-	-
Total - MM Units	248.0	204.6	291.1	356.4	367.9
Market Share (M/I) - %	26.4	29.0	27.8	31.4	32.9
Ex-U.S.A.					
Depreciation	-	-	-	3.4	4.6
Gross Property Additions	5.6	6.7	5.7	11.0	28.9
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	72.2	109.1
Working Capital	-	-	-	38.7	46.7
Gross Investment	69.8	77.1	98.0	110.9	140.8
Avg. Selling Price/Unit (Merchant)	.441	.493	.507	.514	.529
Avg. Cost/Unit	.344	.440	.421	.454	.460
Total Production - MM Units	144.9	150.9	163.0	212.6	238.7
Total Capacity - MM Units	218.0	237.0	252.0	369.3	427.6
Percent Utilization - %	67	64	65	58	56
Merchant Sales - MM Units	160.7	146.5	188.1	193.2	220.6
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	160.7	146.5	188.1	193.2	220.6
Market Share (M/I) - %	22.4	25.0	25.3	26.6	27.3

COMMENTS:

U.S. sales of ABS/SAN in 1977 were 1179MM lbs. versus 986MM lbs. in 1976, for an increase of 15%. Worldwide ABS/SAN industry sales were at 1976 levels due to a decrease in European consumption. Worldwide demand growth rates are forecast to average 6% per year for the next 10 years.

1977 net income was 24% below 1976 due to a 39% decrease in European profits.

The major U.S. Monsanto ABS markets are transportation (40% M/I), pipe (37% M/I), and large appliances (6% M/I). Major customers served are Ford, General Motors, Araco, G.E., Whirlpool and White Industries.

Monsanto's worldwide nitrile polymer sales are equivalent to poly-Varnar's sales. Dow is in the #1 position followed by Bayer, BASF and Uniroyal.

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	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	13.2	12.8	24.2	31.2	32.7
Gross Profit	5.3	3.7	7.7	10.2	11.7
MAT	1.6	2.0	2.4	2.7	3.8
Performance Income	3.5	1.5	4.9	7.0	7.2
Net Income	1.7	0.8	2.4	3.4	3.3
Capital Employed	9.8	12.6	19.4	29.4	31.0
% ROC	17.4	6.4	12.4	11.6	10.7
As a % of Sales:					
Gross Profit	40.2	28.9	31.8	32.7	35.8
MAT	12.1	15.6	9.9	8.7	11.6
Performance Income	26.5	11.7	20.2	22.4	22.0
Net Income	12.9	6.3	9.9	10.9	10.1
U.S. and Export					
Sales	13.2	12.8	24.2	31.2	32.7
Gross Profit	5.3	3.7	7.7	10.2	11.7
MAT	1.6	2.0	2.4	2.7	3.8
Performance Income	3.5	1.5	4.9	7.0	7.2
Net Income	1.7	0.8	2.4	3.4	3.3
Capital Employed	9.8	12.6	19.4	29.4	31.0
% ROC	17.4	6.4	12.4	11.6	10.7
As a % of Sales:					
Gross Profit	40.2	28.9	31.8	32.7	35.8
MAT	12.1	15.6	9.9	8.7	11.6
Performance Income	26.5	11.7	20.2	22.4	22.0
Net Income	12.9	6.3	9.9	10.9	10.1
Ex-U.S.A.					
Sales					
Gross Profit					
MAT					
Performance Income					
Net Income					
Capital Employed			NONE		
% ROC					
As a % of Sales:					
Gross Profit					
MAT					
Performance Income					
Net Income					

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WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

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	1974 Actual	1975 Actual	1976 Actual	1977 Actual	1978 Budget
Pensacola, Florida	25MM lbs	25MM lbs	28MM lbs	33MM lbs	54MM lbs
Springfield, Mass.	5	5	6	6	6
Total	30	30	34	39	60

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	0.7	1.3
Gross Property Additions	0.9	1.6	4.6	6.9	0.8
Gross Property Retirements	-	-	-	-	-
Fixed Capital	13.6	15.9	27.1	22.1	24.3
Working Capital	4.9	5.9	5.8	9.0	11.3
Gross Investment	18.5	21.8	32.9	42.1	45.6
Avg Selling Price/Unit (Merchant)	.758	.902	.979	1.000	1.022
Avg Cost/Unit	.453	.642	.666	.673	.656
Total Production - MM Units	20.7	14.2	25.0	28.0	32.6
Total Capacity - MM Units	24.0	30.0	34.0	38.0	62.0
Percent Utilization - %	69	47	74	74	53
Merchant Sales - MM Units	16.6	14.1	24.5	29.9	30.7
Intercompany Sales - MM Units	0.8	0.1	0.3	1.3	1.2
Total - MM Units	17.4	14.2	24.8	31.2	32.0
Market Share (MM) - %	9.5	11.0	12.0	13.0	14.0
U.S. Export					
Depreciation	-	-	-	0.7	1.3
Gross Property Additions	0.9	1.6	4.6	6.9	0.8
Gross Property Retirements	-	-	-	-	-
Fixed Capital	13.6	15.9	27.1	22.1	24.3
Working Capital	4.9	5.9	5.8	9.0	11.3
Gross Investment	18.5	21.8	32.9	42.1	45.6
Avg Selling Price/Unit (Merchant)	.758	.902	.979	1.000	1.022
Avg Cost/Unit	.453	.642	.666	.673	.656
Total Production - MM Units	20.7	14.2	25.0	28.0	32.6
Total Capacity - MM Units	24.0	30.0	34.0	38.0	62.0
Percent Utilization - %	69	47	74	74	53
Merchant Sales - MM Units	16.6	14.1	24.5	29.9	30.7
Intercompany Sales - MM Units	0.8	0.1	0.3	1.3	1.2
Total - MM Units	17.4	14.2	24.8	31.2	32.0
Market Share (MM) - %	9.5	11.0	12.0	13.0	14.0
Cellulose					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg Selling Price/Unit (Merchant)	-	-	-	-	-
Avg Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

1977 sales volume was a record high 114 pounds. Performance income rose dramatically from \$4.9M in 1976 to \$7.0M in 1977. Prospects for continued growth are excellent.

Nonasento is the second largest nylon 12F producer with 13% market share. We plan to increase this to 17% in 1982 and 20% by 1987. DuPont, the industry leader, holds a 50% share. Celanese, the third 4.6 supplier, holds an estimated 9% market share.

Resources will be directed toward the largest and fastest growing end-use market segments e.g. transportation, electrical/electronic and industrial machinery. Wydne nylon growth will come principally through expanding our second source role and development of a broader account base through our new specialist sales force. Specialty products where we have a proprietary advantage such as P.B. force. Specialty products where we have a proprietary advantage such as P.B. force. Specialty products where we have a proprietary advantage such as P.B. force.

We intend to broaden this concept in the industrial machinery market for further growth. Some typical key accounts in these segments include General Motors, Ford, Chrysler, AMF, VanDuit, All State and Homelite.

Our technology direction is toward extension of key performance characteristics of nylon and development of new proprietary nylons with unique performance capabilities.

In support of our ambitious growth plans we have just completed construction of a new 200 pound Wydne R facility and a 300 pound continuous process nylon unit both at Pensacola, Florida.

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	9.5	9.4	14.7	22.6	25.4
Gross Profit	1.6	1.1	4.0	8.8	8.7
MAT	1.7	1.5	1.8	2.2	2.5
Performance Income	(0.4)	(0.8)	2.0	6.2	5.9
Net Income	(0.2)	(0.3)	0.7	3.3	2.9
Capital Employed	8.5	7.4	8.4	11.6	9.9
% ROC	-	-	8.3	28.5	29.3
As a % of Sales:					
Gross Profit	16.8	11.7	27.2	38.9	34.3
MAT	17.9	16.0	12.2	9.7	9.8
Performance Income	-	-	13.6	27.4	23.2
Net Income	-	-	4.8	14.6	11.4
U.S. and Export					
Sales	9.5	9.4	14.7	22.6	25.4
Gross Profit	1.6	1.1	4.0	8.8	8.7
MAT	1.7	1.5	1.8	2.2	2.5
Performance Income	(0.4)	(0.8)	2.0	6.2	5.9
Net Income	(0.2)	(0.3)	0.7	3.3	2.9
Capital Employed	8.5	7.4	8.4	11.6	9.9
% ROC	-	-	8.3	28.5	29.3
As a % of Sales:					
Gross Profit	16.8	11.7	27.2	38.9	34.3
MAT	17.9	16.0	12.2	9.7	9.8
Performance Income	-	-	13.6	27.4	23.2
Net Income	-	-	4.8	14.6	11.4
Ex-U.S.A.					
Sales					
Gross Profit					
MAT					
Performance Income					
Net Income			NONE		
Capital Employed					
% ROC					
As a % of Sales:					
Gross Profit					
MAT					
Performance Income					
Net Income					

0683165

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1976 Actual	1977 Actual	1978 Budget
Anaheim, Cal.	178MM SF	176MM SF	176MM SF
Addyston, Ohio	200	202	207
Total	378	378	383

	Actual				Budget 1974
	1974	1975	1976	1977	
World-Wide					
Depreciation	0.4	0.4	0.4	0.4	0.5
Gross Property Additions	0.3	0.2	0.2	0.4	0.8
Gross Property Retirements	-	0.5	-	-	-
Fixed Capital	7.2	6.9	7.1	8.0	8.4
Working Capital	3.6	3.0	4.1	7.1	5.2
Gross Investment	10.8	9.9	11.2	15.1	13.6
Avg Selling Price/Unit (Merchandise)	47.26	60.52	60.93	64.59	66.67
Avg Cost/Unit	40.18	53.62	44.44	39.44	43.83
Total Production - MM Units	197	256	240	356	344
Total Capacity - MM Units	480	365	356	378	441
Percent Utilization - %	41	43	67	94	100
Merchant Sales - MM Units	198.2	173.7	241.1	349.9	381.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	198.2	173.7	241.1	349.9	381.0
Market Share (MM) - %	17.9	20.0	22.0	24.0	26.0
U.S. & Export					
Depreciation	0.4	0.4	0.4	0.4	0.5
Gross Property Additions	0.3	0.2	0.2	0.4	0.8
Gross Property Retirements	-	0.5	-	-	-
Fixed Capital	7.2	6.9	7.1	8.0	8.4
Working Capital	3.6	3.0	4.1	7.1	5.2
Gross Investment	10.8	9.9	11.2	15.1	13.6
Avg Selling Price/Unit (Merchandise)	47.26	60.52	60.93	64.59	66.67
Avg Cost/Unit	40.18	53.62	44.44	39.44	43.83
Total Production - MM Units	197	256	240	356	344
Total Capacity - MM Units	480	365	356	378	441
Percent Utilization - %	41	43	67	94	100
Merchant Sales - MM Units	198.2	173.7	241.1	349.9	381.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	198.2	173.7	241.1	349.9	381.0
Market Share (MM) - %	17.9	20.0	22.0	24.0	26.0
U.S.A.					
Depreciation					
Gross Property Additions					
Gross Property Retirements					
Fixed Capital					
Working Capital					
Gross Investment					
Avg Selling Price/Unit (Merchandise)					
Avg Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (MM) - %					

COMMENT:

Form-Cor is used as a sheathing board for manufactured housing, as a headliner substrate for automobiles, as an underlayment for home residing, and as a graphic arts board. The manufactured housing market is cyclical, ranging from 600M units built in 1972 to 200M units in 1975. We are a leading producer in the manufactured housing sheathing market with a 26% share. Industry growth rates are 10-15% per year, but could be adversely affected by a change to a building system that does not require a sheathing board. Form-Cor underlayment board was introduced in 1st Qtr. 1975, and is now an important factor in the home improvement market with a 9% share. Since 90% of this \$40.0MM non-cyclical market does not use an underlayment board, there is an opportunity for significant growth. Share gains of 3-4 points per year are attainable for the next several years. Form-Cor for automotive use, while highly profitable, represents long term risk due to model/body design changes, eliminating the need for our product and potential competitive factors. The automotive market represents a \$45.0MM potential for headliner and interior trim applications. Product improvements are required in order to hold and improve our market position against Stycoor, an Amoco product. A heavy R&D effort has been underway since 4th Qtr. 1977 to achieve this.

0683166

EXPANDABLE POLYSTYRENE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	13.4	15.5	23.2	25.0	23.2
Gross Profit	2.0	(0.1)	1.2	(4.4)	0.9
MAT	1.6	2.3	3.2	4.0	2.6
Performance Income	-	(2.9)	(2.0)	(9.0)	(2.4)
Net Income	-	(2.1)	(1.4)	(5.2)	(1.5)
Capital Employed	8.4	17.3	30.9	25.6	24.5
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	14.9	-	5.2	-	3.9
MAT	11.9	14.8	13.8	16.0	11.2
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	3.2	5.2	8.4	6.2	-
Gross Profit	0.1	(0.1)	0.8	(4.6)	-
MAT	0.7	1.0	1.3	1.4	-
Performance Income	(0.7)	(1.2)	(0.6)	(6.1)	-
Net Income	(0.5)	(0.8)	(0.4)	(3.0)	-
Capital Employed	4.0	7.4	9.7	2.7	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	3.1	-	9.5	-	-
MAT	21.9	19.2	15.5	22.6	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	10.2	10.3	14.8	18.8	23.2
Gross Profit	1.9	-	0.4	0.2	0.9
MAT	0.9	1.3	1.9	2.6	2.6
Performance Income	0.7	(1.7)	(1.4)	(2.9)	(2.4)
Net Income	0.5	(1.3)	(1.0)	(2.2)	(1.5)
Capital Employed	4.4	9.8	21.2	22.9	24.5
% ROC	11.4	-	-	-	-
As a % of Sales:					
Gross Profit	18.6	-	2.7	1.1	3.9
MAT	8.8	12.6	12.8	13.8	11.2
Performance Income	6.9	-	-	-	-
Net Income	4.9	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683167

	1974 Actual	1975 Actual	1976 Actual	1977 Actual	1978 Budget
Springfield, Mass.	15MM lbs	35MM lbs	55MM lbs	38MM lbs	- MM lbs
Newport, Wales	55	50	48	40	33
Wingles, France	-	-	21	41	43
Total	70	85	124	119	76

EXPANDABLE POLYSTYRENE
AMOUNTS IN MILLIONS

NP&RC-18

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	1.6	0.8
Gross Property Additions	-	-	-	1.7	1.1
Gross Property Retirements	-	-	-	4.6	-
Fixed Capital	-	-	-	25.6	22.1
Working Capital	-	-	-	11.2	9.6
Gross Investment	12.8	23.8	39.2	36.8	31.7
Avg. Selling Price/Unit (Merchant)	.340	.359	.363	.346	.351
Avg. Cost/Unit	.289	.352	.344	.343	.337
Total Production - MM Units	45.5	46.5	65.5	62.9	66.1
Total Capacity - MM Units	59.0	79.0	143.0	143.0	90.0
Percent Utilization - %	77	59	46	44	86
Merchant Sales - MM Units	39.4	44.3	64.0	72.2	66.1
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	39.4	44.3	64.0	72.2	66.1
Market Share (MM) - %	4.5	5.3	6.8	N/A	9.7
U.S. & Export					
Depreciation	-	-	-	0.8	-
Gross Property Additions	-	-	-	0.5	-
Gross Property Retirements	-	-	-	4.6	-
Fixed Capital	-	-	-	6.2	-
Working Capital	-	-	-	2.0	-
Gross Investment	5.0	10.7	14.0	8.2	-
Avg. Selling Price/Unit (Merchant)	.339	.363	.382	.348	-
Avg. Cost/Unit	.328	.370	.346	.348	-
Total Production - MM Units	11.4	14.3	23.0	12.1	-
Total Capacity - MM Units	15.0	35.0	55.0	-	-
Percent Utilization - %	77	41	42	22	-
Merchant Sales - MM Units	9.4	14.3	22.0	17.8	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	9.4	14.3	22.0	17.8	-
Market Share (MM) - %	3.0	4.7	6.4	N/A	-
Ex-U.S.A.					
Depreciation	-	-	-	0.8	0.8
Gross Property Additions	1.2	4.6	7.7	1.2	1.1
Gross Property Retirements	-	-	-	-	-
Fixed Capital	5.6	10.3	17.9	19.4	22.1
Working Capital	2.2	2.8	7.3	9.2	9.6
Gross Investment	7.8	13.1	25.2	29.6	31.7
Avg. Selling Price/Unit (Merchant)	.340	.343	.352	.346	.351
Avg. Cost/Unit	.277	.343	.343	.342	.337
Total Production - MM Units	33.9	32.2	42.5	50.8	66.1
Total Capacity - MM Units	44.0	44.0	88.0	88.0	90.0
Percent Utilization - %	77	73	48	58	86
Merchant Sales - MM Units	30.0	30.0	42.0	54.4	66.1
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	30.0	30.0	42.0	54.4	66.1
Market Share (MM) - %	5.3	5.7	7.0	8.7	9.7

COMMENTS:

In 1977, Monsanto withdrew from the U.S. Expandable Polystyrene business after four years of production. Production continues in the U.K. and at Wingles, France. The 1978 budget reflects continued weakness in worldwide EPS markets.

Major end-uses are construction (building, insulation), packaging (primary containers and inserts), and hot drink cups. The major European competitor is BASF, with the major customer being Vencel-Rasil (U.K.).

0683168

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	35.7	25.7	42.9	41.4	42.1
Gross Profit	14.6	1.0	5.7	1.3	(2.7)
MAT	1.3	0.7	1.2	1.5	1.5
Performance Income	12.7	(0.2)	3.8	(0.8)	(4.5)
Net Income	5.7	(0.1)	1.7	(0.5)	(2.5)
Capital Employed	19.5	17.8	22.9	22.2	21.4
% ROC	29.2	-	7.4	-	-
As a % of Sales:					
Gross Profit	40.9	3.9	13.3	3.1	-
MAT	3.6	2.7	2.8	3.6	3.6
Performance Income	35.6	-	8.9	-	-
Net Income	16.0	-	4.0	-	-
U.S. and Export					
Sales	35.7	25.7	42.9	41.4	42.1
Gross Profit	14.6	1.0	5.7	1.3	(2.7)
MAT	1.3	0.7	1.2	1.5	1.5
Performance Income	12.7	(0.2)	3.8	(0.8)	(4.5)
Net Income	5.7	(0.1)	1.7	(0.5)	(2.5)
Capital Employed	19.5	17.8	22.9	22.2	21.4
% ROC	29.2	-	7.4	-	-
As a % of Sales:					
Gross Profit	40.9	3.9	13.3	3.1	-
MAT	3.6	2.7	2.8	3.6	3.6
Performance Income	35.6	-	8.9	-	-
Net Income	16.0	-	4.0	-	-
Ex-U.S.A.					
Sales					
Gross Profit					
MAT					
Performance Income					
Net Income					
Capital Employed			NONE		
% ROC					
As a % of Sales:					
Gross Profit					
MAT					
Performance Income					
Net Income					

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1974	1975	1976	1977	1978
	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Budget</u>
Texas City, TX	170MM lbs	170MM lbs	170MM lbs	170MM lbs	170MM lbs

0683169

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	1.7	1.8
Gross Property Additions	-	-	-	0.3	0.2
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	38.5	44.8
Working Capital	-	-	-	16.9	13.8
Gross Investment	46.4	46.5	53.8	55.4	58.6
Avg. Selling Price/Unit (Merchant)	.250	.193	.235	.257	.249
Avg. Cost/Unit	.139	.209	.215	.248	.264
Total Production - MM Units	160.5	117.9	173.0	163.8	170.4
Total Capacity - MM Units	170.0	170.0	170.0	170.0	170.0
Percent Utilization - %	94	69	102	94	100
Merchant Sales - MM Units	102.6	74.0	121.4	113.5	123.0
Intercompany Sales - MM Units	49.4	43.9	51.4	47.9	47.0
Total - MM Units	152.0	117.9	172.8	161.4	170.0
Market Share (MM) - %	5.7	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation	-	-	-	1.7	1.8
Gross Property Additions	-	-	-	0.3	0.2
Gross Property Retirements	-	-	-	-	0.1
Fixed Capital	-	-	-	38.5	44.8
Working Capital	-	-	-	16.9	13.8
Gross Investment	46.4	46.5	53.8	55.4	58.6
Avg. Selling Price/Unit (Merchant)	.250	.193	.235	.257	.249
Avg. Cost/Unit	.139	.209	.215	.248	.264
Total Production - MM Units	160.5	117.9	173.0	163.8	170.4
Total Capacity - MM Units	170.0	170.0	170.0	170.0	170.0
Percent Utilization - %	94	69	102	94	100
Merchant Sales - MM Units	102.6	74.0	121.4	113.5	123.0
Intercompany Sales - MM Units	49.4	43.9	51.4	47.9	47.0
Total - MM Units	152.0	117.9	172.8	161.4	170.0
Market Share (MM) - %	5.7	N/A	N/A	N/A	N/A
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The 1978 budget calls for near-capacity production and sales, including strong export shipments. Almost one-third of the volume will be captive, serving Monsanto's Blowmold business.

Depressed market pricing and rising ethylene costs will severely erode 1978 profits. Although 1978 sales are budgeted slightly above 1977, the business will sustain a substantial net income loss.

0683170

PLASTICS DIVISION
MINOR PLASTICS
AMOUNTS IN MILLIONS

NP&RC-22

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	22.9	20.6	23.2
Gross Profit	2.1	1.3	1.0
MAT	2.3	3.2	4.3
Performance Income	1.0	(1.2)	(2.4)
Net Income	0.5	(0.8)	(1.3)
Capital Employed	9.4	9.2	11.1
% PROC	5.3	-	-
Fixed Capital	19.0	18.7	19.6
Working Capital	6.6	5.8	6.7
U.S. & Export			
Sales	-	-	-
Gross Profit	(0.3)	(0.3)	-
MAT	1.8	2.9	3.9
Performance Income	(0.6)	(2.1)	(2.7)
Net Income	(0.3)	(1.4)	(1.4)
Capital Employed	-	0.9	1.7
% PROC	-	-	-
Fixed Capital	2.7	2.2	2.7
Working Capital	-	0.1	0.1
Ex-U.S.A.			
Sales	22.9	20.6	23.2
Gross Profit	2.4	1.6	1.0
MAT	0.5	0.3	0.4
Performance Income	1.6	0.9	0.3
Net Income	0.8	0.6	0.1
Capital Employed	9.4	8.3	9.4
% PROC	8.5	7.2	1.1
Fixed Capital	16.3	16.5	16.9
Working Capital	6.6	5.7	6.6

Form IV

	1975 <u>Actual</u>	1976 <u>Actual</u>	1977 <u>Actual</u>	1978 <u>Budget</u>
LDPE				
Production	111.1	88.2	83.0	90.3
Capacity	138.0	88.2	94.1	92.6

0683171

RESIN PRODUCTS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	209.1	205.6	273.3	305.3	313.9
Gross Profit	62.6	48.6	76.1	79.8	75.9
MAT	14.2	15.9	17.6	20.4	22.4
Performance Income	45.0	28.7	54.6	54.9	48.7
Net Income	22.5	14.5	27.5	27.5	22.6
Capital Employed	134.4	145.3	168.0	193.9	218.4
% ROC	16.7	10.0	16.4	14.2	10.3
As a % of Sales:					
Gross Profit	29.9	23.6	27.8	26.1	24.2
MAT	6.8	7.7	6.4	6.7	7.1
Performance Income	21.5	14.0	20.0	18.0	15.5
Net Income	10.8	7.1	10.1	9.0	7.2
<u>U.S. and Export</u>					
Sales	189.6	188.0	244.5	270.5	274.5
Gross Profit	54.7	44.8	66.9	69.4	66.9
MAT	12.9	14.0	14.9	17.0	18.9
Performance Income	39.0	27.5	48.8	49.1	44.5
Net Income	19.4	13.9	24.6	24.5	20.7
Capital Employed	113.3	121.8	147.4	165.5	173.9
% ROC	17.1	11.4	16.7	14.8	11.9
As a % of Sales:					
Gross Profit	28.9	23.8	27.4	25.7	24.4
MAT	6.8	7.4	6.1	6.3	6.9
Performance Income	20.6	14.6	20.0	18.2	16.2
Net Income	10.2	7.4	10.1	9.1	7.5
<u>Ex-U.S.A.</u>					
Sales	19.5	17.6	28.8	34.8	39.4
Gross Profit	7.9	3.8	9.2	10.4	9.0
MAT	1.3	1.9	2.7	3.4	3.5
Performance Income	6.0	1.2	5.8	5.8	4.2
Net Income	3.1	0.6	2.9	3.0	1.9
Capital Employed	21.1	23.5	20.6	28.4	44.5
% ROC	14.7	2.6	14.1	10.6	4.3
As a % of Sales:					
Gross Profit	40.5	21.6	31.9	29.9	22.8
MAT	6.7	10.8	9.4	9.8	8.9
Performance Income	30.8	6.8	20.1	16.7	10.7
Net Income	15.9	3.4	10.1	8.6	4.8

0683172

RESIN PRODUCTS DIVISION
AMOUNTS IN MILLIONS

MP&RC-24

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Depreciation			9.6		13.6
Gross Property Additions			9.2		38.1
Gross Property Retirements			1.5		0.5
Fixed Capital			204.1		245.7
Working Capital			103.4		101.4
Gross Investment	219.4	237.8	243.2	307.5	347.1
<u>U.S. & Export</u>					
Depreciation			7.5		10.3
Gross Property Additions			6.0		18.6
Gross Property Retirements			1.5		0.4
Fixed Capital			176.0		197.6
Working Capital			89.4		88.0
Gross Investment	191.3	205.3	240.0	265.4	285.6
<u>Ex-U.S.A.</u>					
Depreciation			2.1		3.3
Gross Property Additions			3.2		19.5
Gross Property Retirements			-		0.1
Fixed Capital			28.1		48.1
Working Capital			14.0		13.4
Gross Investment	28.1	32.5	3.2	42.1	61.5

COMMENTS:

The Resin Products Division is sub-divided into two major strategic planning units -- Saflex polyvinyl butyral sheet and Resins -- a group of thermoplastic and thermosetting resins.

Saflex is sold primarily as sheet interlayer in automotive windshield glass and laminated architectural glass. Resins are primarily phenolic, aminoplast, paper and polyvinyl butyral resins serving the transportation and construction markets. 1977 net income equaled 1976 due to a strong performance in Saflex which offset a slight decline in the Resins product group. The 1978 budget reflects expected further deterioration in the Resins markets -- primarily in phenolics.

0683173

SAFLEX PRODUCT GROUP
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	58.4	67.6	94.8	112.8	118.9
Gross Profit	22.0	22.3	35.9	43.2	40.0
MAT	4.2	4.5	5.3	6.6	7.8
Performance Income	16.3	16.0	29.1	34.5	29.9
Net Income	8.3	8.2	14.9	17.6	14.2
Capital Employed	61.3	70.1	78.9	98.2	113.8
% ROC	13.5	11.7	18.9	17.9	12.5
As a % of Sales:					
Gross Profit	37.7	33.0	37.9	38.2	33.6
MAT	7.2	6.7	5.6	5.8	6.6
Performance Income	27.9	23.7	30.7	30.6	25.1
Net Income	14.2	12.1	15.7	15.6	11.9
U.S. and Export					
Sales	40.3	52.1	72.4	86.1	89.2
Gross Profit	13.9	18.2	27.6	34.3	32.7
MAT	3.0	3.1	3.5	4.3	5.2
Performance Income	10.0	14.0	23.2	28.9	26.3
Net Income	5.1	7.2	11.9	14.7	12.5
Capital Employed	44.5	51.9	64.4	76.3	74.8
% ROC	11.5	13.9	18.5	19.3	16.7
As a % of Sales:					
Gross Profit	34.5	34.9	38.1	39.8	36.7
MAT	7.4	6.0	4.8	5.0	5.8
Performance Income	24.8	26.9	32.0	33.6	29.5
Net Income	12.7	13.8	16.4	17.1	14.0
Ex-U.S.A.					
Sales	18.1	15.5	22.4	26.7	29.7
Gross Profit	8.1	4.1	8.3	8.9	7.3
MAT	1.2	1.4	1.8	2.3	2.6
Performance Income	6.3	2.0	5.9	5.6	3.6
Net Income	3.2	1.0	3.0	2.9	1.7
Capital Employed	16.8	18.2	14.5	21.9	39.0
% ROC	19.0	5.5	20.7	13.2	4.4
As a % of Sales:					
Gross Profit	44.8	26.5	37.1	32.8	24.6
MAT	6.6	9.0	8.0	8.6	8.8
Performance Income	34.8	12.9	26.3	20.9	12.1
Net Income	17.7	6.5	13.4	10.9	5.7

0683174

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1974	1975	1976	1977	1978
	Actual	Actual	Actual	Actual	Budget
Springfield, Mass.	100MM SF	100MM SF	115MM SF	145MM SF	145MM SF
Trenton, Michigan	120	120	105	100	105
Ghent, Belgium	80	80	85	82	82
Total	300	300	305	327	332

SAFLEX PRODUCT GROUP
AMOUNTS IN MILLIONS

HP&RC-26

	Actual				Budget
	1974	1975	1976	1977	1978
Worldwide					
Depreciation				4.8	5.8
Gross Property Additions				4.3	24.4
Gross Property Retirements				0.4	0.2
Fixed Capital				94.0	118.9
Working Capital				48.3	45.6
Gross Investment	91.2	105.0	117.5	142.3	164.5
Avg. Selling Price/Unit (Merchant)	.281	.337	.363	.388	.414
Avg. Cost/Unit	.175	.225	.221	.237	.271
Total Production - MM Units	202.8	200.8	265.0	289.0	267.0
Total Capacity - MM Units	300.0	300.0	305.0	327.0	332.0
Percent Utilization - %	67	67	87	88	80
Merchant Sales - MM Units	198.0	194.0	249.0	271.0	266.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	198.0	194.0	249.0	271.0	266.0
Market Share (MM) - %	57.0	65.0	65.0	64.0	62.0
U.S. & Export					
Depreciation				3.8	3.4
Gross Property Additions				2.6	4.9
Gross Property Retirements				0.4	0.2
Fixed Capital				72.0	77.1
Working Capital				37.3	34.8
Gross Investment	68.8	78.9	91.6	109.3	111.9
Avg. Selling Price/Unit (Merchant)	.277	.338	.371	.399	.427
Avg. Cost/Unit	.182	.222	.230	.240	.270
Total Production - MM Units	145.0	157.0	201.0	226.0	204.0
Total Capacity - MM Units	220.0	220.0	220.0	245.0	250.0
Percent Utilization - %	66	71	91	92	82
Merchant Sales - MM Units	145.0	151.0	191.0	212.0	204.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	145.0	151.0	191.0	212.0	204.0
Market Share (MM) - %	56.0	67.0	66.0	65.0	63.0
Ex-U.S.A.					
Depreciation				1.0	2.4
Gross Property Additions				1.7	19.5
Gross Property Retirements				-	-
Fixed Capital				22.0	41.8
Working Capital				11.0	10.8
Gross Investment	23.2	26.1	23.9	33.0	52.6
Avg. Selling Price/Unit (Merchant)	.292	.333	.332	.354	.373
Avg. Cost/Unit	.136	.238	.193	.225	.274
Total Production - MM Units	57.0	43.0	64.0	63.0	63.0
Total Capacity - MM Units	80.6	80.0	85.0	82.0	82.0
Percent Utilization - %	71	54	75	77	77
Merchant Sales - MM Units	53.0	43.0	58.0	59.0	62.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	53.0	43.0	58.0	59.0	62.0
Market Share (MM) - %	63.0	58.0	61.0	61.0	60.0

COMMENTS:

Sales and income reached new highs. All world areas contributed, as total sales went over the \$100MM mark for the first time. North American results reflected high market share in a healthy auto market plus a strong increase in sales of architectural grades. In a less expansive economy, European Saflex sales were up moderately while Butvar main sales to Russia increased sharply. Elsewhere, sales gains were registered in Japan, Australia and South Africa. Costs were in good control and gross margins were up from prior years. Gross investment increased substantially reflecting new fixed capital at Birchen Bend (Butvar plant) and at Ghent (Saflex expansion), and effects of inflation on working capital. The 1978 budget anticipates a slight decline in income, with North American auto builds down and European costs inflated by Ghent project expenses.

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RESINS PRODUCT GROUP
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	150.7	138.0	178.5	192.5	195.0
Gross Profit	40.6	26.3	40.2	36.6	35.9
MAT	10.0	11.4	12.3	13.8	14.6
Performance Income	28.7	12.7	25.5	20.4	18.8
Net Income	14.2	6.3	12.6	9.9	8.4
Capital Employed	73.1	75.2	89.1	95.7	104.6
% ROC	19.4	8.4	14.1	10.3	8.0
As a % of Sales:					
Gross Profit	26.9	19.1	22.5	19.1	18.4
MAT	6.6	8.3	6.9	7.2	7.5
Performance Income	19.0	9.2	14.3	10.6	9.6
Net Income	9.4	4.6	7.1	5.1	4.3
U.S. and Export					
Sales	149.3	135.9	172.1	184.4	185.3
Gross Profit	40.8	26.6	39.3	35.1	34.2
MAT	9.9	10.9	11.4	12.7	13.7
Performance Income	29.0	13.5	25.6	20.2	18.2
Net Income	14.3	6.7	12.7	9.8	8.2
Capital Employed	68.8	69.9	83.0	89.2	99.1
% ROC	20.8	9.6	15.3	11.0	8.3
As a % of Sales:					
Gross Profit	27.3	19.6	22.8	19.1	18.5
MAT	6.6	8.0	6.6	6.9	7.4
Performance Income	19.4	9.9	14.9	11.0	9.8
Net Income	9.6	4.9	7.4	5.3	4.4
Ex-U.S.A.					
Sales	1.4	2.1	6.4	8.1	9.7
Gross Profit	(0.2)	(0.3)	0.9	1.5	1.7
MAT	0.1	0.5	0.9	1.1	0.9
Performance Income	(0.3)	(0.8)	(0.1)	0.2	0.6
Net Income	(0.1)	(0.4)	(0.1)	0.1	0.2
Capital Employed	4.3	5.3	6.1	6.5	5.5
% ROC	-	-	-	1.5	3.6
As a % of Sales:					
Gross Profit	-	-	14.1	18.5	17.5
MAT	7.1	23.8	14.1	13.6	9.3
Performance Income	-	-	-	2.5	6.2
Net Income	-	-	-	1.2	2.1

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1974	1975	1976	1977	1978
	Actual	Actual	Actual	Actual	Budget
Springfield, Mass.	405MM lbs.	386MM lbs.	387MM lbs.	326MM lbs.	326MM lbs.
Santa Clara, Cal.	36	40	32	30	35
Chocolate Bayou, Tex.	232	238	244	195	195
Everett, Mass.	8	8	8	21	9
Eugene, Oregon	307	294	281	267	185
Addyston, Ohio	256	259	252	171	165
Trenton, Michigan	33	36	38	21	21
Nitro, W. Virginia	70	70	70	112	112
Baxley, Georgia	93	93	93	93	93
Bircham Bend, Mass.	122	126	131	117	117
Lasalle, Canada	32	30	36	37	38
Antwerp, Belgium	3	11	11	12	13
Total	1597	1591	1583	1402	1309

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	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation				4.8	7.0
Gross Property Additions				4.9	13.7
Gross Property Retirements				1.1	0.3
Fixed Capital				110.1	126.8
Working Capital				55.1	55.8
Gross Investment	128.2	132.8	154.7	165.2	182.6
Avg. Selling Price/Unit (Merchant)	.177	.204	.215	.206	.194
Avg. Cost/Unit	.130	.165	.166	.145	.158
Total Production - MM Units	1172.1	919.0	1147.1	925.0	895.0
Total Capacity - MM Units	1596.1	1591.1	1583.0	1402.0	1309.0
Percent Utilization - %	73	58	72	66	69
Merchant Sales - MM Units	749.0	608.6	769.9	783.6	825.2
Intercompany Sales - MM Units	51.4	67.2	68.9	80.3	111.9
Total - MM Units	800.4	675.8	838.8	863.9	937.1
Market Share (M/U) - %	N/A	N/A	N/A	N/A	N/A
U.S. & Export					
Depreciation				3.7	6.9
Gross Property Additions				3.4	13.7
Gross Property Retirements				1.1	0.2
Fixed Capital				104.0	120.5
Working Capital				52.1	53.2
Gross Investment	123.3	216.4	146.5	156.1	173.7
Avg. Selling Price/Unit (Merchant)	.163	.199	.198	.202	.188
Avg. Cost/Unit	.115	.147	.141	.141	.135
Total Production - MM Units	1158.8	909.7	1131.0	903.0	875.0
Total Capacity - MM Units	1561.6	1550.0	1536.0	1353.0	1258.0
Percent Utilization - %	74	59	74	67	70
Merchant Sales - MM Units	785.5	598.6	745.4	762.4	803.5
Intercompany Sales - MM Units	51.4	67.2	68.9	80.3	111.9
Total - MM Units	836.9	665.8	814.3	842.7	915.4
Market Share (M/U) - %	N/A	N/A	N/A	N/A	N/A
Ex-U.S.A.					
Depreciation				1.1	0.8
Gross Property Additions				1.5	-
Gross Property Retirements				-	0.1
Fixed Capital				6.1	6.3
Working Capital				3.0	2.6
Gross Investment	4.9	6.4	8.3	9.1	8.9
Avg. Selling Price/Unit (Merchant)	.104	.210	.413	.382	.442
Avg. Cost/Unit	.119	.240	.348	.311	.364
Total Production - MM Units	13.5	10.0	16.1	22.0	22.0
Total Capacity - MM Units	34.7	41.1	47.0	49.0	51.0
Percent Utilization - %	39	24	34	45	43
Merchant Sales - MM Units	13.5	10.0	15.5	21.2	21.7
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	13.5	10.0	15.5	21.2	21.7
Market Share (M/U) - %	N/A	N/A	N/A	N/A	N/A

COMMENTS:

The Resins product group is comprised primarily of melamine formaldehyde resins for coatings, phenolic resins for bonding and laminating, paper resins and polyvinyl acetate products. Demand for these products is related to autos and other durable goods and housing activity.

1977 net income was down versus 1976 primarily due to weak prices in phenolic resins.

Major competitors are American Cyanamid, Georgia Pacific, Reichhold and Union Carbide.

(a) Average price/cost data represent a composite of several hundred formulations. They do not present a concise picture of any one group of products, but do indicate trends.

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FABRICATED PRODUCTS DIVISION
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978 (a)
<u>World-Wide</u>					
Sales	137.6	124.4	142.7	132.0	138.8
Gross Profit	32.4	19.1	20.3	22.8	27.0
MAT	11.6	13.8	15.1	14.1	17.9
Performance Income	18.3	3.2	3.7	6.6	6.9
Net Income	6.9	1.4	1.4	3.0	2.8
Capital Employed	67.3	62.4	62.5	54.5	67.8
% ROC	10.3	2.2	2.2	5.5	4.1
As a % of Sales:					
Gross Profit	23.5	15.4	14.2	17.3	19.5
MAT	8.4	11.1	10.6	10.7	12.9
Performance Income	13.3	2.6	2.6	5.0	5.0
Net Income	5.0	1.1	1.0	2.3	2.0
<u>U.S. and Export</u>					
Sales	130.3	117.6	133.3	122.1	130.7
Gross Profit	30.3	17.6	17.4	21.7	24.3
MAT	10.8	12.7	13.4	12.3	15.2
Performance Income	17.2	2.8	2.8	7.8	7.0
Net Income	6.4	1.0	1.0	3.5	2.8
Capital Employed	62.6	59.1	56.4	49.3	61.8
% ROC	10.2	1.7	1.8	7.1	4.5
As a % of Sales:					
Gross Profit	23.3	15.0	13.1	17.8	18.6
MAT	8.3	10.8	10.1	10.1	11.6
Performance Income	13.2	2.4	2.1	6.4	5.4
Net Income	4.9	0.9	0.8	2.9	2.1
<u>Ex-U.S.A.</u>					
Sales	7.3	6.8	9.4	9.9	8.1
Gross Profit	2.1	1.5	2.9	1.1	2.7
MAT	0.8	1.1	1.7	1.8	2.7
Performance Income	1.1	0.4	0.9	(1.2)	(0.1)
Net Income	0.5	0.4	0.4	(0.5)	-
Capital Employed	4.7	3.3	6.1	5.2	6.0
% ROC	10.6	12.1	6.6	-	-
As a % of Sales:					
Gross Profit	28.8	22.1	30.9	11.1	33.3
MAT	11.0	16.2	18.1	18.1	33.3
Performance Income	15.1	5.9	9.6	-	-
Net Income	6.8	5.9	4.3	-	-

(a) 1978 budget includes Cycle-Safe, prior years do not.

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FABRICATED PRODUCTS DIVISION
AMOUNTS IN MILLIONS

MP&RC-30

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation				3.6	2.9
Gross Property Additions				6.8	6.6
Gross Property Retirements				8.1	2.2
Fixed Capital	59.8	61.4	63.7	58.4	62.1
Working Capital	40.3	36.0	36.2	30.9	35.0
Gross Investment	100.1	97.4	99.9	89.3	97.1
U.S. & Export					
Depreciation				3.2	2.9
Gross Property Additions				3.9	6.6
Gross Property Retirements				7.0	2.2
Fixed Capital	57.9	59.7	60.4	58.2	61.9
Working Capital	38.0	34.7	32.5	25.8	29.1
Gross Investment	95.9	94.4	92.9	84.0	91.0
Ex-U.S.A.					
Depreciation				0.4	-
Gross Property Additions				2.9	-
Gross Property Retirements				1.1	-
Fixed Capital	1.9	1.7	3.3	0.2	0.2
Working Capital	2.3	1.3	3.7	5.1	5.9
Gross Investment	4.2	3.0	7.0	5.3	6.1

COMMENTS:

The Fabricated Products division consists of four separate businesses -- Blownware, Extruded Products, Recreational Surfaces and Cycle-Safe which is included as a separate section of this report.

Blownware is a major supplier of polyethylene bottles to the household, personal care and pharmaceutical markets.

Extruded Products is comprised of the polyethylene film business for the commodity and specialty markets and CIM (consumer injection molded) products which are currently doormats and roll goods (landscaping).

Recreational Products is a leading manufacturer of synthetic stadium surfaces sold under the AstroTurf trademark.

Fab Products Division's net income more than doubled in 1977 as a result of the termination and sales of several unprofitable businesses and dramatic profit improvement in the CIM business.

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BLOWNWARE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	68.1	64.7	78.7	75.9	81.4
Gross Profit	8.1	8.1	12.7	12.9	14.2
MAT	4.1	4.5	5.0	5.6	7.0
Performance Income	3.5	2.7	7.3	6.3	6.3
Net Income	1.7	1.3	3.5	3.1	2.8
Capital Employed	32.3	30.0	32.0	31.3	35.7
% ROC	5.3	4.3	10.9	9.9	7.8
As a % of Sales:					
Gross Profit	11.9	12.5	16	17.0	17.4
MAT	6.0	6.9	6	7.4	8.6
Performance Income	5.1	4.2	9	8.3	7.7
Net Income	2.5	2.0	4.4	4.1	3.4
U.S. and Export					
Sales	68.1	64.7	78.7	75.9	81.4
Gross Profit	8.1	8.1	12.7	12.9	14.2
MAT	4.1	4.5	5.0	5.6	7.0
Performance Income	3.5	2.7	7.3	6.6	6.2
Net Income	1.7	1.3	3.5	3.2	2.8
Capital Employed	31.1	28.9	30.7	29.9	34.2
% ROC	5.5	4.5	11.4	10.7	8.2
As a % of Sales:					
Gross Profit	11.9	12.5	16.1	17.0	17.4
MAT	6.0	6.9	6.3	7.4	8.6
Performance Income	5.1	4.2	9.2	8.7	7.6
Net Income	2.5	2.0	4.4	4.2	3.4
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	(0.3)	0.1
Net Income	-	-	-	(0.1)	-
Capital Employed	1.2	1.1	1.3	1.4	1.5
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

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Anaheim, California; Deep River, Ct.; Ligonier, Indiana; Kenilworth, N.J.;
Lima, Ohio; Sharonville, Ohio; West Port, Missouri; Yardville, N.J.:

	1976	1977	1978
	Actual	Actual	Budget
Total	1406MM Bottles	1284MM Bottles	1480MM Bottles

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	1.7	2.0	2.1	2.0	1.7
Gross Property Additions	4.2	2.9	1.7	1.7	4.9
Gross Property Retirements	1.8	1.8	-	1.7	1.7
Fixed Capital	33.7	34.8	37.2	38.5	39.7
Working Capital	16.7	14.8	15.8	15.9	17.8
Gross Investment	50.4	49.6	53.0	52.4	57.5
Avg. Selling Price/Unit (Merchant)	73.861	82.526	80.800	76.238	76.075
Avg. Cost/Unit	65.076	72.194	67.760	63.306	62.804
Total Production - MM Units	904	774	971	988	1071
Total Capacity - MM Units	1400	1400	1400	1284	1480
Percent Utilization - %	65	55	65	77	72
Merchant Sales - MM Units	922	784	974	995	1070
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	922	784	974	995	1070
Market Share (M) - %	16.3	13.6	15.2	14.0	14.5
U.S. & Export					
Depreciation	1.7	2.0	2.1	2.0	1.7
Gross Property Additions	4.2	2.9	1.7	1.7	4.9
Gross Property Retirements	1.8	1.8	0.9	1.7	1.7
Fixed Capital	33.7	34.8	35.9	36.5	39.7
Working Capital	16.7	14.8	15.8	14.5	16.4
Gross Investment	50.4	49.6	51.7	51.0	56.1
Avg. Selling Price/Unit (Merchant)	73.861	82.526	80.800	76.238	76.075
Avg. Cost/Unit	65.076	72.194	67.760	63.306	62.804
Total Production - MM Units	904	774	971	988	1071
Total Capacity - MM Units	1400	1400	1400	1284	1480
Percent Utilization - %	65	55	65	77	72
Merchant Sales - MM Units	922	784	974	995	1070
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	922	784	974	995	1070
Market Share (M) - %	16.3	13.6	15.2	14.0	14.5
Ex U.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	1.3	1.4	1.4
Working Capital	-	-	1.3	1.4	1.4
Gross Investment	-	-	2.7	2.8	2.8
Avg. Selling Price/Unit (Merchant)					
Avg. Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (M) - %					

COMMENTS:

The Blowware business group manufactures and sells plastic bottles in sizes of less than one gallon, primarily from high-density polyethylene (HDPE) resin purchased from Plastic Division and other suppliers.

The business is currently managed for growth, targeting an increase in overall relative market share from 1.1X to 1.3X in markets growing at 6% per year.

A RAP overview analysis of Blowware's business situation and strategic alternatives is underway, targeted for completion later in 1978. On its completion, a revised business strategy may be appropriate.

Sales and net income were lower in 1977 vs. 1976, due primarily to lower volume.

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AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	9.9	9.5	9.5	6.4	7.3
Gross Profit	4.1	2.4	1.5	2.2	3.6
MAT	3.3	4.8	5.0	2.0	2.3
Performance Income	-	(2.7)	(3.8)	0.1	1.1
Net Income	-	(1.5)	(2.1)	0.1	0.5
Capital Employed	8.2	7.0	4.8	3.2	4.3
% ROC	-	-	-	3.1	11.6
As a % of Sales:					
Gross Profit	41.4	25.3	15.8	34.4	49.3
MAT	33.3	50.5	52.6	31.3	31.5
Performance Income	-	-	-	1.6	15.1
Net Income	-	-	-	1.6	6.8
U.S. and Export					
Sales	8.9	7.9	7.8	4.8	5.6
Gross Profit	3.8	2.0	1.1	1.8	2.9
MAT	3.1	4.4	4.3	1.7	1.9
Performance Income	(0.1)	(2.8)	(3.4)	-	0.8
Net Income	(0.1)	(1.6)	(1.9)	-	0.3
Capital Employed	7.9	6.7	4.0	2.6	3.6
% ROC	-	-	-	-	8.3
As a % of Sales:					
Gross Profit	42.7	25.3	14.1	37.5	51.8
MAT	34.8	55.7	55.1	35.4	33.9
Performance Income	-	-	-	-	14.3
Net Income	-	-	-	-	5.4
Ex-U.S.A.					
Sales	1.0	1.6	1.7	1.6	1.7
Gross Profit	0.3	0.4	0.4	0.4	0.7
MAT	0.2	0.4	0.7	0.3	0.4
Performance Income	0.1	0.1	(0.4)	0.1	0.3
Net Income	0.1	0.1	(0.2)	0.1	0.2
Capital Employed	0.3	0.3	0.8	0.6	0.7
% ROC	33.3	33.3	-	16.7	28.6
As a % of Sales:					
Gross Profit	30.0	25.0	23.5	25.0	41.2
MAT	20.0	25.0	41.2	18.8	23.5
Performance Income	10.0	6.3	-	6.3	17.6
Net Income	10.0	6.3	-	6.3	11.8

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WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

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	1976 Actual	1977 Actual	1978 Budget
Pensacola, Florida	23.8MM SF	17MM SF	17.5MM SF

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	0.1	0.1	0.1	-	0.1
Gross Property Additions	0.1	0.2	0.2	-	0.9
Gross Property Retirements	-	-	0.8	-	0.3
Fixed Capital	3.3	4.0	3.2	1.5	2.1
Working Capital	6.6	5.2	1.5	2.5	2.9
Gross Investment	9.9	9.2	6.7	4.0	5.0
Avg. Selling Price/Unit (Merchant)					
Avg. Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (MII) - %					
U.S. & Export					
Depreciation	0.1	0.1	0.1	-	0.1
Gross Property Additions	-	0.2	0.2	-	0.9
Gross Property Retirements	-	-	0.8	-	0.3
Fixed Capital	3.2	3.9	3.1	1.5	2.1
Working Capital	6.4	5.0	2.8	1.9	2.1
Gross Investment	9.6	8.9	5.9	3.4	4.2
Avg. Selling Price/Unit (Merchant)					
Avg. Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (MII) - %					
Ex. 18.8					
Depreciation	-	-	-	-	-
Gross Property Additions	0.1	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	0.1	0.1	0.1	-	-
Working Capital	0.2	0.2	0.7	0.6	0.8
Gross Investment	0.3	0.3	0.8	0.6	0.8
Avg. Selling Price/Unit (Merchant)					
Avg. Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (MII) - %					

COMMENTS:

CIN business is comprised of doormats and roll goods (brooms were discontinued in 1977) produced on the continuous injection machine. Major short term emphasis will be the development of CIN industrial products utilizing current product configuration of the patented CIN process.

The current CIN business is not projected to grow beyond 1978 budgeted volumes unless the developmental projects, currently being assessed, are successful.

Although 1977 CIN sales were below 1976 levels, net income increased sharply in 1977 due primarily to a significant reduction of R&D expense.

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	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	37.9	29.0	32.0	33.3	34.1
Gross Profit	15.3	4.2	4.0	5.1	4.9
MAT	1.7	1.8	2.1	3.0	2.4
Performance Income	12.8	1.8	1.3	1.5	1.9
Net Income	4.6	0.7	0.5	0.7	0.8
Capital Employed	16.3	15.2	14.5	14.9	14.1
% ROC	28.2	4.6	3.5	4.7	5.7
As a % of Sales:					
Gross Profit	40.4	14.5	12.5	15.3	14.4
MAT	4.5	6.2	6.6	9.0	7.0
Performance Income	33.8	6.2	4.1	4.5	5.6
Net Income	12.1	2.4	1.6	2.1	2.3
U.S. and Export					
Sales	37.9	29.0	32.0	33.3	34.1
Gross Profit	15.3	4.2	4.0	5.1	4.9
MAT	1.7	1.8	2.1	3.0	2.4
Performance Income	12.8	1.8	1.3	1.5	1.9
Net Income	4.6	0.7	0.5	0.7	0.8
Capital Employed	16.3	15.2	14.5	14.9	14.1
% ROC	28.2	4.6	3.5	4.7	5.7
As a % of Sales:					
Gross Profit	40.4	14.5	12.5	15.3	14.4
MAT	4.5	6.2	6.6	9.0	7.0
Performance Income	33.8	6.2	4.1	4.5	5.6
Net Income	12.1	2.4	1.6	2.1	2.3
Ex-U.S.A.					
Sales					
Gross Profit					
MAT					
Performance Income					
Net Income			NONE		
Capital Employed					
% ROC					
As a % of Sales:					
Gross Profit					
MAT					
Performance Income					
Net Income					

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

	1976 Actual	1977 Actual	1978 Budget
Anaheim, California	31MM lbs.	32MM lbs.	31MM lbs.
Kenilworth, N.J.	76	77	76
Total	107	109	107

0683184

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.9	0.9	0.9	0.9	0.9
Gross Property Additions	0.3	0.3	0.1	0.1	0.2
Gross Property Retirements	1.1	-	-	-	0.1
Fixed Capital	14.5	14.8	14.9	15.5	15.6
Working Capital	9.9	8.3	8.3	9.3	9.1
Gross Investment	24.4	23.1	23.2	24.8	24.7
Avg. Selling Price/Unit (Merchant)	.425	.439	.446	.464	.502
Avg. Cost/Unit	.252	.376	.391	.390	.430
Total Production - MM Units	89	67	69	72	69
Total Capacity - MM Units	94	104	107	109	107
Percent Utilization - %	94.7	64.4	64.5	66.1	64.5
Merchant Sales - MM Units	89.3	66.9	71.7	71.5	67.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	89.3	66.9	71.7	71.5	67.9
Market Share (MM) - %	N/A	N/A	N/A	3.4	3.4
U.S. & Export					
Depreciation	0.9	0.9	0.9	0.9	0.9
Gross Property Additions	0.3	0.3	0.1	0.1	0.2
Gross Property Retirements	1.1	-	-	-	0.1
Fixed Capital	14.5	14.8	14.9	15.5	15.6
Working Capital	9.9	8.3	8.3	9.3	9.1
Gross Investment	24.4	23.1	23.2	24.8	24.7
Avg. Selling Price/Unit (Merchant)	.425	.439	.446	.464	.502
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Total Production - MM Units	89	67	69	72	69
Total Capacity - MM Units	94	104	107	109	107
Percent Utilization - %	94.7	64.4	64.5	66.1	64.5
Merchant Sales - MM Units	89.3	66.9	71.7	71.5	67.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	89.3	66.9	71.7	71.5	67.9
Market Share (MM) - %	N/A	N/A	N/A	3.4	3.4
Excluded					
Depreciation					
Gross Property Additions					
Gross Property Retirements					
Fixed Capital					
Working Capital					
Gross Investment					
Avg. Selling Price/Unit (Merchant)					
Avg. Cost/Unit					
Total Production - MM Units					
Total Capacity - MM Units					
Percent Utilization - %					
Merchant Sales - MM Units					
Intercompany Sales - MM Units					
Total - MM Units					
Market Share (MM) - %					

COMMENTS:

Monsanto is engaged in the manufacture and sale of low density polyethylene film to the commodity and specialty film markets. Approximately 75% of 1977 sales were to the commodity market. The total commodity market is estimated at 2.2 billion pounds, of which Monsanto has a 2.4% market share. The remaining 25% of 1977 sales was submersed diaper film which is part of the specialty film market. This product is manufactured at Kenilworth, N.J. and is sold directly to diaper manufacturers -- Procter & Gamble is the major customer. The specialty film market totals 280 million pounds per year of which Monsanto has a 5.4% market share.

* Market share was redefined in 1977.

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RECREATIONAL PRODUCTS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	6.9	11.8	12.2	10.8	16.0
Gross Profit	1.2	3.5	1.6	3.4	4.8
MAT	1.2	1.5	1.9	2.7	3.7
Performance Income	(0.3)	1.7	(0.5)	0.4	0.6
Net Income	(0.2)	1.0	(0.3)	0.2	0.3
Capital Employed	4.4	5.5	6.8	4.9	7.0
% ROC	-	18.2	-	4.1	4.3
As a % of Sales:					
Gross Profit	17.1	30.1	13.0	31.5	30.0
MAT	17.4	12.7	15.6	25.0	23.1
Performance Income	-	14.4	-	3.7	3.8
Net Income	-	8.5	-	1.9	1.9
U.S. and Export					
Sales	5.3	9.5	8.7	5.5	9.6
Gross Profit	0.6	2.4	(0.1)	1.8	2.8
MAT	1.0	1.2	1.3	1.5	1.4
Performance Income	(0.7)	0.9	(1.5)	0.1	1.1
Net Income	(0.4)	0.5	(0.8)	-	0.5
Capital Employed	4.1	5.4	4.5	1.7	3.2
% ROC	-	9.3	-	-	15.6
As a % of Sales:					
Gross Profit	11.3	25.3	-	32.7	29.2
MAT	18.9	12.6	14.9	27.3	14.6
Performance Income	-	9.5	-	1.8	11.5
Net Income	-	5.3	-	-	5.2
Ex-U.S.A.					
Sales	1.6	2.3	3.5	5.3	6.4
Gross Profit	0.6	1.1	1.7	1.6	2.0
MAT	0.2	0.3	0.6	1.2	2.3
Performance Income	0.4	0.8	1.0	0.3	(0.5)
Net Income	0.2	0.5	0.5	0.2	(0.2)
Capital Employed	0.3	0.1	2.3	3.2	3.8
% ROC	66.7	500.0	21.7	6.3	-
As a % of Sales:					
Gross Profit	37.5	47.8	48.6	30.2	31.3
MAT	12.5	13.0	17.1	22.6	35.9
Performance Income	25.0	34.8	28.6	5.7	-
Net Income	12.5	21.7	14.3	3.8	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683186

	1976 Actual	1977 Actual	1978 Budget
Dalton, Georgia	9.8MM SF	6.8MM SF	9.6MM SF

RECREATIONAL PRODUCTS

MP&AC-38

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	0.2	0.2	0.2	0.2	0.2
Gross Property Additions	0.2	0.1	0.1	0.1	0.6
Gross Property Retirements	0.1	-	0.1	-	0.1
Fixed Capital	1.8	2.1	2.7	4.4	4.7
Working Capital	3.5	4.7	5.7	3.2	5.2
Gross Investment	5.3	6.9	8.4	7.6	9.9
Avg. Selling Price/Unit (Merchant)	3.286	4.720	5.810	5.403	4.695
Avg. Cost/Unit	2.714	3.320	5.048	3.708	3.294
*Total Production - MM Units	2.1	2.5	2.1	2.5	3.7
Total Capacity - MM Units	8.6	9.8	9.8	6.8	9.6
Percent Utilization - %	24	26	21	37	39
Merchant Sales - MM Units	2.1	2.5	2.1	2.0	3.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	2.1	2.5	2.1	2.0	3.3
Market Share (MM) - %	-	-	-	-	-
U.S. & Export					
Depreciation	0.2	0.2	0.2	0.2	0.2
Gross Property Additions	0.2	0.1	0.1	0.1	0.6
Gross Property Retirements	0.1	-	0.1	-	0.1
Fixed Capital	1.6	2.1	2.5	4.2	4.5
Working Capital	3.4	4.6	3.6	0.1	1.3
Gross Investment	5.0	6.7	6.1	4.3	6.0
Avg. Selling Price/Unit (Merchant)	2.790	4.318	5.438	4.583	4.629
Avg. Cost/Unit	2.474	3.227	5.500	3.083	3.179
Total Production - MM Units	2.1	2.5	2.1	2.5	3.7
Total Capacity - MM Units	8.6	9.8	9.8	6.8	9.6
Percent Utilization - %	24	26	21	37	39
Merchant Sales - MM Units	1.9	2.2	1.6	1.2	2.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	1.9	2.2	1.6	1.2	2.0
Market Share (MM) - %	-	-	-	-	-
Ex-U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	0.2	-	0.2	0.2	0.2
Working Capital	0.1	0.1	2.1	3.1	3.7
Gross Investment	0.3	0.1	2.3	3.3	3.9
Avg. Selling Price/Unit (Merchant)	8.000	7.467	7.800	6.625	4.923
Avg. Cost/Unit	3.000	4.000	3.400	4.625	3.385
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	0.2	0.3	0.5	0.8	1.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.2	0.3	0.5	0.8	1.3
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Our key strategy is to convert the European soccer market to synthetic turf with Monsanto as the leader in market share and to develop strategies/programs to expand the U.S. market while maintaining an 80% market share.

In the international market our present share is 55%, projected to increase to 65% by 1980 (70% in Western Europe).

Worldwide net income increased \$0.58 in 1977 vs. 1976, due to a higher gross profit market -- 31.5% vs. 13.0% -- despite lower sales volume.

*All Production is Domestic. Ex-USA Sales are Installations only.

0683187

FABRICATED PRODUCTS DIVISION

MINOR PRODUCTS

AMOUNTS IN MILLIONS

MP&RC-40

	1976	1977	1978 Budget
	Products	Products	Products
<u>World-Wide</u>			
Sales	10.3	5.6	-
Gross Profit	0.5	(0.8)	-
MAT	1.1	0.8	-
Performance Income	(0.6)	(1.7)	-
Net Income	(0.2)	(1.1)	-
Capital Employed	4.4	0.2	-
% PROC	-	-	-
Fixed Capital	5.7	0.4	-
Working Capital	2.9	0.1	-
<u>U.S. & Export</u>			
Sales	6.1	2.6	-
Gross Profit	(0.3)	0.1	-
MAT	0.7	0.5	-
Performance Income	(0.9)	(0.4)	-
Net Income	(0.3)	(0.4)	-
Capital Employed	2.7	0.2	-
% PROC	-	-	-
Fixed Capital	4.0	0.4	-
Working Capital	2.0	0.1	-
<u>Ex-U.S.A.</u>			
Sales	4.2	3.0	-
Gross Profit	0.8	(0.9)	-
MAT	0.4	0.3	-
Performance Income	0.3	(1.3)	-
Net Income	0.1	(0.7)	-
Capital Employed	1.7	-	-
% PROC	5.9	-	-
Fixed Capital	1.7	-	-
Working Capital	0.9	-	-

Form IV

0683188

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Sales	-	0.7	7.2	3.1	-
Gross Profit	(2.5)	(8.5)	(31.1)	(45.2)	(0.5)
MAT	16.1	25.5	10.1	6.4	2.5
Performance Income	(18.6)	(34.0)	(41.6)	(51.5)	(3.0)
Net Income	(10.5)	(19.1)	(23.3)	(28.5)	(1.6)
Capital Employed	48.4	62.9	64.4	15.2	6.7
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	140.0	206.0	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	-	0.7	7.2	3.1	-
Gross Profit	(2.5)	(8.5)	(31.1)	(45.2)	(0.5)
MAT	15.9	25.4	10.0	6.3	2.5
Performance Income	(18.4)	(33.9)	(41.5)	(51.4)	(3.0)
Net Income	(10.4)	(19.0)	(23.2)	(28.4)	(1.6)
Capital Employed	48.4	62.9	64.4	15.2	6.7
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	139.0	203.0	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	0.2	0.1	0.1	0.1	-
Performance Income	(0.2)	(0.1)	(0.1)	(0.1)	-
Net Income	(0.1)	(0.1)	(0.1)	(0.1)	-
Capital Employed					
% ROC					
As a % of Sales:					
Gross Profit					
MAT					
Performance Income					
Net Income					

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Cycle-Safe
AMOUNTS IN MILLIONS

MP&RC-42

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	1.7	1.9	5.0	2.3	1.0
Gross Property Additions	35.9	16.6	9.0	0.7	-
Gross Property Retirements	0.3	-	2.2	36.7	4.8
Fixed Capital	51.9	69.6	76.4	30.7	25.9
Working Capital	0.4	2.1	7.8	7.5	-
Gross Investment	52.2	71.7	84.2	38.2	25.9
U.S. & Export					
Depreciation	1.7	1.9	5.0	2.3	1.0
Gross Property Additions	35.9	19.6	9.0	0.7	-
Gross Property Retirements	0.3	-	2.2	36.7	4.8
Fixed Capital	51.9	69.6	76.4	30.7	25.9
Working Capital	0.4	2.1	7.8	7.5	-
Gross Investment	52.3	71.7	84.2	38.2	25.9
Ex-U.S.A.					
Depreciation					
Gross Property Additions					
Gross Property Retirements					
Fixed Capital			NONE		
Working Capital					
Gross Investment					

COMMENTS:

During 1977, the machinery and equipment associated with Cycle-Safe was written off for financial reporting purposes due to the FDA order in February, 1977. The 1978 Budget includes an ongoing research program to determine the feasibility of producing returnable bottles.

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MONSANTO TEXTILES COMPANY

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ALL HISTORICAL DATA HAS BEEN REWORKED TO REFLECT THE COST OF KEY MAJOR INTERMEDIATES — ACRYLONITRILE, AMMONIA, CHLOROBENZENES, ETHYLENE, NYLON SALT, PHENOL, STYRENE MONOMER — TRANSFERRED BETWEEN OPERATING UNITS AT COST PLUS A SHARE OF CAPITAL. ALL OTHER MATERIALS CONTINUE TO BE TRANSFERRED BETWEEN OPERATING UNITS ON A MARKET OR NEGOTIATED TRANSFER PRICE BASIS.

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MONSANTO TEXTILES COMPANY
MAJOR PRODUCT DATA BOOK

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*Includes Home Furnishings, Wigs and Blended Fibers
 **Includes Home Furnishings and Monvelle
 ***Includes Olympia Texturing Operation
 ****Includes Hale Manufacturing, Israel Chemical Fibres,
 Olympia Fabric Operation, Minor Products and
 Elimination

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MTC-1

MONSANTO TEXTILES COMPANY
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	771.6	748.3	855.5	884.5	977.7
Gross Profit	217.4	93.1	109.2	79.0	102.1
MAT	90.0	88.1	84.8	84.5	83.4
Performance Income	112.5	(10.2)	5.3	(21.2)	0.6
Net Income	52.1	(24.5)	(18.7)	(38.6)	(22.5)
Capital Employed	673.8	823.9	883.0	931.1	955.4
% ROC	7.7	-	-	-	-
U.S. and Export					
Sales	596.8	570.5	667.6	705.7	791.1
Gross Profit	176.6	82.9	98.8	98.8	108.4
MAT	73.9	69.6	65.0	65.6	63.9
Performance Income	93.9	3.7	21.9	23.7	32.6
Net Income	44.7	(6.6)	(3.5)	4.9	7.9
Capital Employed	492.5	623.7	658.8	737.1	734.3
% ROC	9.1	-	-	0.7	1.1
Ex-U.S.A.					
Sales	174.8	177.8	187.9	178.8	186.6
Gross Profit	40.8	10.2	10.4	(19.8)	6.3
MAT	16.1	18.5	19.8	18.9	19.5
Performance Income	18.6	(13.9)	(16.6)	(44.9)	(32.0)
Net Income	7.4	(17.9)	(22.2)	(43.5)	(30.4)
Capital Employed	181.3	200.2	224.2	194.0	221.1
% ROC	4.1	-	-	-	-

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MONSANTO TEXTILES COMPANY
 WORLDWIDE CAPITAL EMPLOYED BY ROC GROUPING
 (Amounts in Millions)

HTC-2

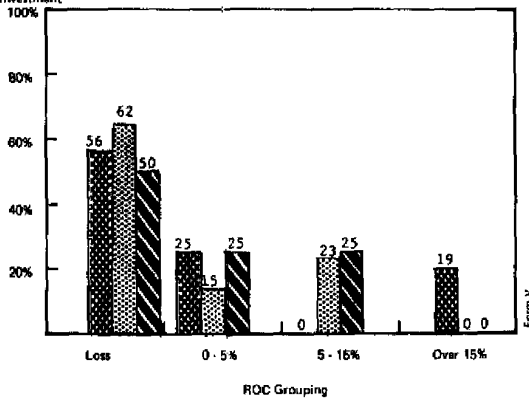
Dollar Investment

1976	496	220	-	167	883
1977	579	137	215	-	931
1978 Budget	479	238	238	-	955

ROC Grouping Loss 0 - 5% 5 - 15% Over 15% Total

1976 
 1977 
 1978
Budget 

Percentage of
Total Investment



0683195

MONSANTO TEXTILES COMPANY
 WORLDWIDE PRODUCT NET CASH FLOW ANALYSES
 (Amounts in Millions)

	1974	1975	1976	1977	1978 Budget
<u>Total Textiles</u>					
Net Income After Tax	\$ 52.1	\$(24.5)	\$(18.7)	\$(38.6)	\$(22.5)
Change in Capital Employed	(108.3)	(150.1)	(59.1)	(48.1)	(24.3)
Net Cash Flow	\$(56.2)	\$(174.6)	\$(77.8)	\$(86.7)	\$(46.8)
<u>Acrilan</u>					
Net Income After Tax	\$ 18.3	\$(12.5)	\$(3.6)	\$(11.1)	\$(13.9)
Change in Capital Employed	(34.1)	(48.0)	(37.0)	(11.7)	(26.2)
Net Cash Flow	\$(15.8)	\$(60.5)	\$(40.6)	\$(22.8)	\$(40.1)
<u>Nylon</u>					
Net Income After Tax	\$ 31.5	\$(1.1)	\$ 12.4	\$(12.2)	\$ 1.7
Change in Capital Employed	(8.7)	(56.6)	(32.0)	8.1	(0.8)
Net Cash Flow	\$ 22.8	\$(57.7)	\$(19.6)	\$(4.1)	\$ 0.9
<u>Polyester-Continuous Filament</u>					
Net Income After Tax	\$ 2.5	\$(5.5)	\$(23.8)	\$(10.8)	\$(9.5)
Change in Capital Employed	(47.7)	(36.3)	13.7	(57.1)	1.8
Net Cash Flow	\$(45.2)	\$(41.8)	\$(10.1)	\$(67.9)	\$(7.7)
<u>Polyester-Staple</u>					
Net Income After Tax	\$ 0.4	\$(1.5)	\$(0.2)	\$ 2.2	\$ 1.2
Change in Capital Employed	(2.4)	3.0	(1.9)	2.8	(1.1)
Net Cash Flow	\$(2.0)	\$ 1.5	\$(2.1)	\$ 5.0	\$ 0.1
<u>Nonwovens</u>					
Net Income After Tax	\$(1.2)	\$(2.9)	\$(3.5)	\$(3.6)	\$(3.8)
Change in Capital Employed	(3.2)	(3.5)	(3.0)	(4.9)	1.5
Net Cash Flow	\$(4.4)	\$(6.4)	\$(6.5)	\$(8.5)	\$(2.3)

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MONSANTO TEXTILES COMPANY
WORLDWIDE CAPITAL EMPLOYED BY MAJOR PRODUCT

	1976		1977		1978 Budget	
	Capital	ROC	Capital	ROC	Capital	ROC
Acrilan	\$ 295.7	- %	\$ 307.4	- %	\$ 333.6	- %
Nylon	372.9	3.3	364.8	-	365.6	0.5
Polyester-C.F.	128.9	-	186.0	-	184.2	-
Polyester-Staple	22.7	-	19.9	11.1	21.0	5.7
Nonwovens	18.7	-	23.6	-	22.1	-
Other	44.1	-	29.4	-	28.9	6.2
Total	<u>\$ 883.0</u>	<u>- %</u>	<u>\$ 931.1</u>	<u>-</u>	<u>\$ 955.4</u>	<u>- %</u>
Polyester-C.F.	\$ 128.9	- %	\$ 186.0	- %	\$ 184.2	- %
Nylon-Carpet	103.0	16.4	142.9	5.7	160.1	6.4
Acrilan-Apparel	120.8	2.6	137.2	3.7	132.1	3.9
Acrilan-Europe	117.4	-	119.9	-	154.9	-
Nylon-Apparel	99.3	2.7	88.8	-	75.1	0.8
Nylon-Europe	108.4	-	80.7	-	73.5	-
Nylon-Industrial	64.4	15.4	52.2	12.1	56.7	12.0
Acrilan-Carpet	56.5	-	47.2	-	44.5	-
Nonwovens	18.7	-	23.6	-	22.1	-
Polyester-Staple	22.7	-	19.9	11.1	21.0	5.7
Other	42.9	-	32.7	-	31.2	3.5
Total	<u>\$ 883.0</u>	<u>- %</u>	<u>\$ 931.1</u>	<u>- %</u>	<u>\$ 955.4</u>	<u>- %</u>

0683197

MTC-5

MONSANTO TEXTILES COMPANY
SUMMARY OF CAPITAL EMPLOYED AT A LOSS
(Amounts in Millions)

<u>1977 Capital Employed</u>	<u>Major Product</u>	<u>1977 Net Income Loss</u>
186.0	Polyester - C.F.	10.8
119.0	Acrilan - Europe	12.9
88.8	Nylon - Apparel	0.7
80.7	Nylon - Europe	25.1
47.2	Acrilan - Carpet	2.9
23.6	Nonwovens	3.6

0683198

MONSANTO TEXTILES COMPANY
MAJOR PRODUCT LISTING BY CAPITAL EMPLOYED AND ROC GROUPING - 1977
 (Amounts in Millions)

NET INCOME RETURN ON CAPITAL				
CAPITAL EMPLOYED	LOSS	0% - 5%	5% - 15%	OVER 15%
OVER \$50	Polyester-CF \$186.0 -% Acrilan-Europe 119.9 - Nylon-Apparel 88.8 - Nylon-Europe 80.7 - Acrilan-Carpet 47.2 -	Acrilan-Apparel \$137.2 3.7%	Nylon-Carpet \$142.9 5.7% Nylon-Industrial 52.2 12.1	
\$25-\$50	All Other \$ 32.7 -%			
\$10-\$25	Nonwovens \$ 23.6 -%		Polyester-Staple \$ 19.9 11.1%	
\$ 5-\$10				
UNDER \$5				
TOTAL CAPITAL EMPLOYED \$931	\$579	\$137	\$215	\$-

0683199

NTC-6

ACRILAN
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	186.3	187.5	230.5	246.6	247.3
Gross Profit	75.1	24.6	39.2	29.7	23.4
MAT	30.6	32.7	29.7	30.4	25.4
Performance Income	39.4	(11.2)	4.2	(6.2)	(7.9)
Net Income	18.3	(12.5)	(3.6)	(11.1)	(13.9)
Capital Employed	210.7	258.7	295.7	307.4	333.6
% ROC	8.7	-	-	-	-
As a % of Sales:					
Gross Profit	40.3	13.1	17.0	12.0	9.5
MAT	16.4	17.4	12.8	12.3	10.3
Performance Income	21.1	(5.9)	1.8	(2.5)	(3.2)
Net Income	9.8	(6.7)	(1.6)	(4.5)	(5.6)
U.S. and Export					
Sales	103.0	107.5	133.8	153.5	144.7
Gross Profit	50.7	15.6	26.4	28.3	22.2
MAT	21.5	21.9	18.4	19.2	13.7
Performance Income	27.4	(6.6)	5.5	6.6	5.8
Net Income	13.6	(5.3)	0.8	1.6	1.0
Capital Employed	106.2	149.3	182.6	191.1	186.0
% ROC	12.8	-	0.4	0.8	0.5
As a % of Sales:					
Gross Profit	49.2	14.5	19.7	18.4	15.3
MAT	20.9	20.4	13.8	12.5	9.5
Performance Income	26.6	(6.1)	4.1	4.3	4.0
Net Income	13.2	(4.9)	0.6	1.0	0.7
Ex-U.S.A.					
Sales	83.3	80.0	97.4	93.1	102.6
Gross Profit	24.4	9.0	12.8	1.4	1.2
MAT	9.1	10.8	11.3	11.2	11.7
Performance Income	12.0	(4.6)	(1.3)	(12.8)	(13.7)
Net Income	4.7	(7.2)	(4.4)	(12.7)	(14.9)
Capital Employed	104.5	109.4	113.1	116.3	147.6
% ROC	4.5	-	-	-	-
As a % of Sales:					
Gross Profit	29.3	11.3	13.1	1.5	1.2
MAT	10.9	13.5	11.6	12.0	11.4
Performance Income	14.4	(5.7)	(1.3)	(13.7)	(13.4)
Net Income	5.6	(9.0)	(4.5)	(13.6)	(14.5)

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Plant	Millions
Decatur	324.5
Coleraine	129.7
Lingen	70.0
	<u>524.2</u>

0683200

ACRILAN
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	17.2	17.8
Gross Property Additions	-	-	-	11.9	9.3
Gross Property Retirements	-	-	-	3.0	-
Fixed Capital	-	-	-	383.1	418.7
Working Capital	-	-	-	103.2	107.9
Gross Investment	358.0	407.7	454.2	486.3	526.6
U.S. & Export					
Depreciation	-	-	-	10.7	11.0
Gross Property Additions	-	-	-	6.6	6.9
Gross Property Retirements	-	-	-	2.5	-
Fixed Capital	-	-	-	259.7	265.1
Working Capital	-	-	-	61.6	59.6
Gross Investment	222.6	260.5	297.9	321.3	324.7
Ex-U.S.A.					
Depreciation	-	-	-	6.5	6.8
Gross Property Additions	-	-	-	5.3	2.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	123.4	153.6
Working Capital	-	-	-	41.6	48.3
Gross Investment	135.4	417.2	156.3	165.0	201.9

COMMENTS:

In 1977 U.S. acrylic fiber producers shipped 696 million pounds, a year to year growth of 11.2% over 1976. Monsanto shipments were up 12% with strong gains in apparel. Acrylics represented 5.2% of all fiber shipments. There are five acrylic/modacrylic producers in the U.S. Monsanto has 28% of the domestic market, second to duPont with 43% and ahead of American Cyanamid with 14%. Dow-Badische is the other major producer. DuPont continues to concentrate its business in apparel, while Dow's sales are 80% in carpet. Monsanto is in both markets but with emphasis predominantly placed on apparel.

Acrylic fibers worldwide are in an overcapacity position. This situation and interfiber competition have prevented the implementation of selling price increases. Cost reduction programs will allow Monsanto to keep its leading manufacturing cost position. MAT expense will be reduced with most of the decrease in marketing expense.

Cost improvement and continued tight control of MAT are the keys to the cash generation strategy for Acrilan until the worldwide supply and demand position comes into better balance.

0683201

ACRILAN-APPAREL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	61.3	75.0	95.1	119.5	114.9
Gross Profit	28.4	10.4	24.6	28.2	26.0
MAT	13.4	14.2	14.2	14.1	10.8
Performance Income	14.6	(4.5)	8.6	12.1	13.2
Net Income	7.0	(3.5)	3.1	5.1	5.2
Capital Employed	67.1	97.7	120.8	137.2	132.1
% ROC	10.4	-	2.6	3.7	3.9
As a % of Sales:					
Gross Profit	46.3	13.9	25.9	23.6	22.6
MAT	21.9	18.9	15.0	11.8	9.4
Performance Income	23.8	(6.0)	9.0	10.1	11.5
Net Income	11.4	(4.7)	3.3	4.3	4.5
U.S. and Export					
Sales	60.8	74.6	94.4	118.8	114.9
Gross Profit	28.3	10.4	26.4	28.2	26.0
MAT	13.4	14.2	14.3	14.1	10.8
Performance Income	14.5	(4.5)	8.6	12.4	13.2
Net Income	7.0	(3.5)	3.1	5.1	5.2
Capital Employed	66.9	97.7	120.8	137.2	132.1
% ROC	10.5	-	2.6	3.7	3.9
As a % of Sales:					
Gross Profit	46.5	13.9	27.9	23.9	22.6
MAT	22.0	19.0	15.1	11.9	9.4
Performance Income	23.8	(6.0)	9.1	10.5	11.5
Net Income	11.5	(4.7)	3.3	4.3	4.5
Ex-U.S.A.					
Sales	0.5	0.4	0.7	0.7	-
Gross Profit	0.1	-	-	-	-
MAT	-	-	-	-	-
Performance Income	0.1	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	0.2	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	20.0	-	-	-	-
MAT	-	-	-	-	-
Performance Income	20.0	-	-	-	-
Net Income	-	-	-	-	-

0683202

ACRYLON APPAREL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	7.4	7.6
Gross Property Additions	-	-	-	4.7	4.8
Gross Property Retirements	-	-	-	1.7	-
Fixed Capital	-	-	-	185.8	192.9
Working Capital	-	-	-	46.0	42.6
Gross Investment	139.3	168.3	198.7	229.8	235.5
Avg. Selling Price/Unit (Merchant)	.634	.589	.621	.639	.628
Avg. Cost/Unit	.341	.507	.461	.488	.486
Total Production - MM Units	104.4	111.8	158.4	204.1	189.0
Total Capacity - MM Units	151.3	163.8	182.1	206.4	246.5
Percent Utilization - %	69	68	87	99	77
Merchant Sales - MM Units	96.0	127.4	153.0	187.0	183.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	96.0	127.4	153.0	187.0	183.0
Market Share (MM) - %	21.7	23.3	26.8	28.3	27.9
U.S. & Export					
Depreciation	-	-	-	7.4	7.6
Gross Property Additions	-	-	-	4.7	4.8
Gross Property Retirements	-	-	-	1.7	-
Fixed Capital	-	-	-	185.8	192.9
Working Capital	-	-	-	46.0	42.6
Gross Investment	139.3	168.3	198.7	229.8	235.5
Avg. Selling Price/Unit (Merchant)	.634	.587	.620	.639	.628
Avg. Cost/Unit	.343	.505	.447	.488	.486
Total Production - MM Units	104.4	111.8	158.4	204.1	189.0
Total Capacity - MM Units	151.3	163.8	182.1	206.4	246.5
Percent Utilization - %	69	68	87	99	77
Merchant Sales - MM Units	95.3	127.0	152.2	187.0	183.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	95.3	127.0	152.2	187.0	183.0
Market Share (MM) - %	21.7	23.3	26.8	28.3	27.9
East U.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	0.2	-	-	-	-
Avg. Selling Price/Unit (Merchant)	.734	.794	.875	-	-
Avg. Cost/Unit	.571	.794	.875	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	0.7	0.4	0.8	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.7	0.4	0.8	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The Acrylon apparel segment of the business has included home furnishings and wig fiber as well as the traditional apparel and ure. Production of wig fiber was phased out during 1977. Major competitors in the textile denim markets are duPont and American Cyanamid. Our major customers are Dearing Milliken, Doversburg Fabrics, and Aracis Inc.

1977 turned out to be a stronger year than expected for acrylic apparel fibers. Monsanto started in the improvement as shipments were up 25% over 1976. Performance income improved 41% because of the higher volume. Prices were stable for most of 1977 following an early year increase of 4c per pound. Monsanto improved its market share from 27% to 29%.

Performance income is budgeted to increase modestly in 1978, with the improvement coming from reduced R&D spending, with most of the decrease in marketing expense. 1978 and future years strategy will be to focus on more profitable market segments which are less sensitive to interfiber competition. There will be increased utilization of the cost efficient Decatur North plant and reduced production at the less efficient South plant.

0603203

ACRILAN-CARPET
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
<u>World-Wide</u>					
Sales	41.0	30.2	34.3	27.8	24.1
Gross Profit	19.1	3.2	1.7	(1.7)	(4.1)
MAT	7.0	6.1	3.8	2.1	1.4
Performance Income	12.0	(3.0)	(3.2)	(4.3)	(6.1)
Net Income	6.1	(2.1)	(2.4)	(2.9)	(3.5)
Capital Employed	38.9	48.9	56.5	47.2	44.5
% ROC	15.7	-	-	-	-
As a % of Sales:					
Gross Profit	46.6	10.5	5.0	(6.1)	(17.0)
MAT	17.1	20.2	11.1	7.6	5.8
Performance Income	29.3	(9.9)	(9.3)	(15.5)	(25.3)
Net Income	14.9	(7.0)	(7.0)	(10.4)	(14.5)
<u>U.S. and Export</u>					
Sales	40.7	30.1	34.1	27.8	24.1
Gross Profit	14.0	3.2	1.7	(1.7)	(4.1)
MAT	7.0	6.1	3.8	2.1	1.4
Performance Income	11.9	(3.0)	(3.2)	(4.3)	(6.1)
Net Income	6.1	(2.1)	(2.4)	(2.9)	(3.5)
Capital Employed	38.7	48.9	56.5	47.2	44.5
% ROC	15.7	-	-	-	-
As a % of Sales:					
Gross Profit	46.7	10.6	5.0	(6.1)	(17.0)
MAT	17.2	20.3	11.1	7.6	5.8
Performance Income	29.2	(10.0)	(9.4)	(15.5)	(25.3)
Net Income	15.0	(7.0)	(7.0)	(10.4)	(14.5)
<u>Ex-U.S.A.</u>					
Sales	0.3	0.1	0.2	-	-
Gross Profit	0.1	-	-	-	-
MAT	-	-	-	-	-
Performance Income	0.1	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	0.2	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	33.3	-	-	-	-
MAT	-	-	-	-	-
Performance Income	33.3	-	-	-	-
Net Income	-	-	-	-	-

0683204

ACRILAN-CARPET
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	3.3	3.4
Gross Property Additions	-	-	-	1.9	2.1
Gross Property Retirements	-	-	-	0.8	-
Fixed Capital	-	-	-	67.5	61.1
Working Capital	-	-	-	15.9	16.7
Gross Investment	83.1	88.7	93.1	83.4	77.8
Avg. Selling Price/Unit (Merchant)	.608	.610	.580	.568	.502
Avg. Cost/Unit	.324	.345	.352	.383	.388
Total Production - MM Units	75.8	42.2	59.9	51.6	51.0
Total Capacity - MM Units	109.6	93.5	122.4	133.9	75.2
Percent Utilization - %	69	45	49	39	67
Merchant Sales - MM Units	67.4	49.5	59.1	50.6	48.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	67.4	49.5	59.1	50.6	48.0
Market Share (MM) - %	42.1	40.2	42.0	40.6	40.0
U.S. & Export					
Depreciation	-	-	-	3.3	3.4
Gross Property Additions	-	-	-	1.9	2.1
Gross Property Retirements	-	-	-	0.8	-
Fixed Capital	-	-	-	67.5	61.1
Working Capital	-	-	-	15.9	16.7
Gross Investment	82.9	88.7	93.1	83.4	77.8
Avg. Selling Price/Unit (Merchant)	.607	.611	.580	.549	.502
Avg. Cost/Unit	.323	.348	.351	.383	.388
Total Production - MM Units	75.8	42.2	59.9	51.6	51.0
Total Capacity - MM Units	109.6	93.5	122.4	133.9	75.2
Percent Utilization - %	69	45	49	39	67
Merchant Sales - MM Units	67.0	49.3	58.8	50.6	48.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	67.0	49.3	58.8	50.6	48.0
Market Share (MM) - %	42.1	40.2	42.0	40.6	40.0
Ex U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	0.2	-	-	-	-
Avg. Selling Price/Unit (Merchant)	.750	.300	.667	-	-
Avg. Cost/Unit	.500	.500	.667	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	0.4	0.2	0.3	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	0.4	0.2	0.3	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The use of acrylic fiber in carpets has declined in recent years and is forecast to continue to decline. Monsanto's Acrilan shares in this decline because to a large extent it has not proved successful as a pile dyeable carpet fiber. It is forecast that by 1980 the use of acrylic fibers in carpets will be no more than 2%. Dow-Badische is our only domestic competitor. Our major customers are Mohasco, Avondale and Armstrong Cork.

Performance income has been in a negative position since 1975 and is budgeted to worsen in 1978 as volume will be less and average selling prices lower. The strategy for Acrilan carpet is to continue the business as a working asset. Performance income will continue to be negative for the Textiles Company but is forecast to be cash generative for the Corporation.

NAT expense which was as high as seven million dollars in 1974, has been drastically reduced to a low of 1.6 million dollars budgeted for 1978.

0683205

ACRILAN - EUROPE
 AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Sales	84.0	81.2	100.5	96.7	107.1
Gross Profit	24.7	9.5	12.8	3.0	1.2
MAT	9.3	11.0	11.7	13.1	12.1
Performance Income	12.1	(4.3)	(1.6)	(13.1)	(14.3)
Net Income	4.8	(7.1)	(4.5)	(12.9)	(15.3)
Capital Employed	104.7	111.8	117.4	119.9	154.9
% ROC	4.6	-	-	-	-
As a % of Sales:					
Gross Profit	29.4	11.7	12.7	3.1	1.1
MAT	11.1	13.5	11.6	13.5	11.3
Performance Income	14.4	(5.3)	(1.6)	(13.5)	(13.4)
Net Income	5.7	(8.7)	(4.5)	(13.3)	(14.3)
U.S. and Export					
Sales	1.5	1.7	4.0	3.8	4.5
Gross Profit	0.5	0.5	-	0.2	-
MAT	0.2	0.2	0.4	0.5	0.4
Performance Income	0.3	0.3	(0.3)	(0.3)	(0.4)
Net Income	0.1	0.1	(0.1)	(0.2)	(0.4)
Capital Employed	0.6	2.4	4.3	3.6	7.3
% ROC	16.6	4.2	-	-	-
As a % of Sales:					
Gross Profit	33.3	29.4	-	5.3	1.0
MAT	13.3	11.8	10.0	13.2	9.5
Performance Income	20.0	17.6	(7.5)	(7.9)	(8.5)
Net Income	6.7	5.9	(2.5)	(5.3)	(8.5)
Ex-U.S.A.					
Sales	82.5	79.5	96.5	92.9	102.6
Gross Profit	24.2	9.0	12.8	2.8	1.2
MAT	9.1	10.8	11.3	12.6	11.7
Performance Income	11.8	(4.6)	(1.3)	(12.8)	(13.7)
Net Income	4.7	(7.2)	(4.4)	(12.7)	(14.9)
Capital Employed	104.1	109.4	113.1	116.3	147.6
% ROC	4.5	-	-	-	-
As a % of Sales:					
Gross Profit	29.3	11.3	13.3	3.0	1.1
MAT	11.0	13.6	11.7	13.6	11.4
Performance Income	14.3	(5.8)	(1.3)	(13.8)	(13.4)
Net Income	5.7	(9.1)	(4.6)	(13.7)	(14.5)

0683206

ACRILAN - EUROPE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
Worldwide					
Depreciation	-	-	-	6.5	6.8
Gross Property Additions	-	-	-	5.3	2.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	127.0	160.9
Working Capital	-	-	-	41.6	48.3
Gross Investment	136.6	149.6	160.6	168.6	209.2
Avg Selling Price/Unit (Merchant)	.736	.678	.659	.646	.639
Avg Cost/Unit	.518	.598	.573	.626	.631
Total Production - MM Units	135.6	129.4	150.5	145.6	161.8
Total Capacity - MM Units	171.9	176.6	176.6	187.5	199.7
Percent Utilization - %	79	73	85	78	81
Merchant Sales - MM Units	116.4	119.8	152.5	149.8	167.7
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	116.4	119.8	152.5	149.8	167.7
Market Share (M/B) - %	11.0	11.5	11.5	11.3	11.3
U.S. & Export					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	3.6	7.3
Working Capital	-	-	-	-	-
Gross Investment	0.6	2.4	4.3	3.6	7.3
Avg Selling Price/Unit (Merchant)	.699	.734	.635	.679	.763
Avg Cost/Unit	.466	.519	.635	.643	.763
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	2.1	2.3	6.3	5.6	5.9
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	2.1	2.3	6.3	5.6	5.9
Market Share (M/B) - %	-	-	-	-	-
EX-USA					
Depreciation	-	-	-	6.5	6.8
Gross Property Additions	-	-	-	5.3	2.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	123.4	153.6
Working Capital	-	-	-	41.6	48.3
Gross Investment	135.0	147.2	156.3	165.0	201.9
Avg Selling Price/Unit (Merchant)	.735	.677	.660	.646	.634
Avg Cost/Unit	.519	.606	.573	.625	.627
Total Production - MM Units	135.6	129.4	150.5	145.6	161.8
Total Capacity - MM Units	171.9	176.6	176.6	187.5	199.7
Percent Utilization - %	79	73	85	78	81
Merchant Sales - MM Units	112.3	117.5	146.2	144.2	161.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	112.3	117.5	146.2	144.2	161.8
Market Share (M/B) - %	11.0	11.5	11.5	11.3	11.3

COMMENTS:

Western Europe is the world's largest market for acrylic fiber. Monsanto is one of the fourteen acrylic producers in Western Europe and is number four in overall size behind Courtaulds, Bayer and Montefiber. We are also number four in the apparel market behind the same three companies. In the carpet market, we are the largest producer, 3.7 times the size of the next producer, Bayer.

After reaching a peak of 18 million dollars performance income in 1973, sales volume dropped sharply in 1974. Although volumes have increased since then, selling prices have not kept pace with higher costs and income has suffered. Performance loss for 1977 was 13.1 million dollars, the major causes being continued under utilization of capacity, a weak economic environment, and severe price erosion. 1978 is budgeted to show no improvement. The major strategic plan for 1978 is to manage Acrlan Europe for cash generation while maintaining current market share. This will be accomplished mainly by utilizing worldwide installed capacity and development of the U.K. carpet franchise.

0683207

ACRILAN - OTHER
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	-	1.1	0.6	2.6	1.2
Gross Profit	2.9	1.5	0.1	0.2	0.3
MAT	0.9	1.4	-	1.1	1.1
Performance Income	0.7	0.6	0.4	(0.9)	(0.7)
Net Income	0.4	0.2	0.2	(0.4)	(0.3)
Capital Employed	-	-	-	3.1	2.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
U.S. and Export					
Sales	-	1.1	0.6	3.1	1.2
Gross Profit	2.9	1.5	0.1	1.6	0.3
MAT	0.9	1.4	-	2.5	1.1
Performance Income	0.7	0.6	0.4	(0.9)	(0.7)
Net Income	0.4	0.2	0.2	(0.4)	(0.3)
Capital Employed	-	-	-	3.1	2.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Ex-U.S.A.					
Sales	-	-	-	(0.5)	-
Gross Profit	-	-	-	(1.4)	-
MAT	-	-	-	(1.4)	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

0683208

NYLON, TOTAL
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Sales	397.2	401.1	462.4	462.2	503.5
Gross Profit	102.5	53.1	85.5	40.0	59.0
MAT	31.8	30.3	29.5	29.0	28.9
Performance Income	65.2	15.6	46.3	4.6	22.5
Net Income	31.5	(1.1)	12.4	(12.2)	1.7
Capital Employed	284.3	340.9	372.9	364.8	365.6
% ROC	11.1	-	3.3	-	0.5
As a % of Sales:					
Gross Profit	26.1	13.2	18.5	8.7	11.7
MAT	8.0	7.5	6.4	6.3	5.7
Performance Income	16.4	3.9	10.0	1.0	4.5
Net Income	7.9	(0.3)	2.7	(2.6)	0.3
U.S. and Export					
Sales	319.6	316.1	384.8	387.4	419.5
Gross Profit	89.3	53.3	89.7	57.3	66.5
MAT	26.1	23.7	22.1	22.4	21.1
Performance Income	60.1	25.5	61.7	31.2	40.8
Net Income	29.6	10.5	29.9	13.3	17.2
Capital Employed	215.0	258.1	269.7	287.1	292.1
% ROC	13.8	4.1	11.1	4.6	5.9
As a % of Sales:					
Gross Profit	27.9	16.9	23.3	14.8	15.9
MAT	8.2	7.5	5.7	5.8	5.0
Performance Income	18.8	8.1	16.0	8.1	9.7
Net Income	9.3	3.3	7.8	3.4	4.1
Ex-U.S.A.					
Sales	77.6	85.0	77.6	74.8	84.0
Gross Profit	13.2	(1.0)	(4.2)	(17.3)	(7.5)
MAT	5.7	6.6	7.4	6.6	7.8
Performance Income	5.1	(9.9)	(15.4)	(26.6)	(18.3)
Net Income	1.9	(11.6)	(17.5)	(25.5)	(15.5)
Capital Employed	69.3	82.8	103.2	77.7	73.5
% ROC	2.7	-	-	-	-
As a % of Sales:					
Gross Profit	17.0	(1.2)	(5.4)	(23.1)	(8.9)
MAT	7.3	7.7	9.5	8.8	9.3
Performance Income	6.6	(11.6)	(19.8)	(35.5)	(21.8)
Net Income	2.4	(13.6)	(22.6)	(34.1)	(18.5)

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Plant	Millions
Pensacola	297.1
Dacatur	36.1
Greenwood	195.2
Dundonald	33.5
Echternach	34.9
	<u>596.8</u>

0683209

NYLON-TOTAL
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Depreciation	-	-	-	19.5	18.2
Gross Property Additions	-	-	-	20.9	10.9
Gross Property Retirements	-	-	-	10.1	3.7
Fixed Capital	-	-	-	663.3	672.3
Working Capital	-	-	-	118.4	117.3
Gross Investment	643.4	734.2	779.0	781.7	789.6
U.S. & Export					
Depreciation	-	-	-	12.4	13.0
Gross Property Additions	-	-	-	19.1	9.5
Gross Property Retirements	-	-	-	9.6	3.7
Fixed Capital	-	-	-	553.3	557.9
Working Capital	-	-	-	91.6	105.6
Gross Investment	540.6	605.2	624.8	644.9	663.5
Ex-U.S.A.					
Depreciation	-	-	-	7.1	5.2
Gross Property Additions	-	-	-	1.8	1.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	110.0	114.4
Working Capital	-	-	-	26.8	11.7
Gross Investment	102.8	129.0	154.2	136.8	126.1

COMMENTS:

Monsanto U.S. nylon business is in apparel (including hosiery and home furnishings), carpet, and industrial end uses. Textiles Europe sells into the apparel, carpet and home furnishings markets. Major nylon competitors are duPont, Allied, Akzona and Dow-Badische.

In 1977, total synthetic fiber industry growth rate was 8% with the nylon fiber segment growing at a 10% rate. This favorable rate for nylon came exclusively from the excellent growth rates of carpet staple and carpet filament. The apparel sector was stagnant as interfiber competition and imports consumed the growth. Industrial nylon grew only 2% due to increased usage of steel radials for truck tire and tire imports. Monsanto's U.S. produced nylon shared in the carpet growth, but sales of both apparel and industrial products were down in 1977. With Europe nylon sales also down from 1976, total worldwide sales remained at 1976 levels. Performance income was down significantly in 1977 as average selling prices were down and unit costs were up. Both sales and performance income are budgeted to increase in 1978.

0683210

NYLON-APPAREL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	111.8	111.8	121.9	112.9	113.8
Gross Profit	25.1	8.2	18.1	8.3	9.5
MAT	12.5	9.0	8.2	5.9	5.1
Performance Income	11.6	(2.9)	7.6	0.9	3.2
Net Income	5.0	(2.8)	2.7	(0.7)	0.6
Capital Employed	97.7	104.5	99.3	88.8	75.1
% ROC	5.1	-	2.7	-	0.8
As a % of Sales:					
Gross Profit	22.5	7.3	14.8	7.4	8.3
MAT	11.2	8.1	6.7	5.2	4.5
Performance Income	10.4	(2.6)	6.2	0.8	2.8
Net Income	4.5	(2.5)	2.2	(0.6)	0.5
U.S. and Export					
Sales	111.8	111.8	121.9	112.9	113.8
Gross Profit	25.1	8.2	18.1	8.3	9.5
MAT	12.5	9.0	8.2	5.9	5.1
Performance Income	11.6	(2.9)	7.6	0.9	3.2
Net Income	5.0	(2.8)	2.7	(0.7)	0.6
Capital Employed	97.7	104.5	99.3	88.8	75.1
% ROC	5.1	-	2.7	-	0.8
As a % of Sales:					
Gross Profit	22.5	7.3	14.8	7.4	8.3
MAT	11.2	8.1	6.7	5.2	4.5
Performance Income	10.4	(2.6)	6.2	0.8	2.8
Net Income	4.5	(2.5)	2.2	(0.6)	0.5
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

0683211

NYLON APPAREL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	4.7	4.9
Gross Property Additions	-	-	-	2.4	2.5
Gross Property Retirements	-	-	-	4.2	1.5
Fixed Capital	-	-	-	192.0	181.7
Working Capital	-	-	-	34.4	34.3
Gross Investment	233.1	260.8	238.4	226.4	216.0
Avg. Selling Price/Unit (Merchant)	1.225	1.223	1.324	1.302	1.308
Avg. Cost/Unit	.950	1.133	1.127	1.206	1.199
Total Production - MM Units	96.9	85.0	86.5	91.0	85.9
Total Capacity - MM Units	103.8	106.9	102.5	109.7	108.0
Percent Utilization - %	93	80	84	83	80
Merchant Sales - MM Units	91.3	91.4	92.1	86.7	87.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	91.3	91.4	92.1	86.7	87.0
Market Share (Mill) - %	18.3	19.2	19.4	19.4	19.5
U.S. & Export					
Depreciation	-	-	-	4.7	4.9
Gross Property Additions	-	-	-	2.4	2.5
Gross Property Retirements	-	-	-	4.2	1.5
Fixed Capital	-	-	-	192.0	181.7
Working Capital	-	-	-	34.4	34.3
Gross Investment	233.1	260.8	238.4	226.4	216.0
Avg. Selling Price/Unit (Merchant)	1.225	1.223	1.324	1.302	1.308
Avg. Cost/Unit	.950	1.133	1.127	1.206	1.199
Total Production - MM Units	96.9	85.0	86.5	91.0	85.9
Total Capacity - MM Units	103.8	106.9	102.5	109.7	108.0
Percent Utilization - %	93	80	84	83	80
Merchant Sales - MM Units	91.3	91.4	92.1	86.7	87.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	91.3	91.4	92.1	86.7	87.0
Market Share (Mill) - %	18.3	19.2	19.4	19.4	19.5
Back S.S.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mill) - %	-	-	-	-	-

COMMENTS:

The nylon apparel segment of Monsanto's textiles business includes home furnishings, nylon hosiery, and light industrial as well as the apparel market. Nonville was phased out in 1977. Major customers are Burlington, Kahn & Feldman and Sapona Mfg. Filament nylon apparel is subdivided into yarns for textured and non-textured applications, 47% and 53% respectively and is essentially static. DuPont is the dominant leader in both segments. Other major competitors are Enka and Chevron. Monsanto is second in the customer textured yarn segment with 33% market share. Steadily cheap imports are included in the balance, which have forced DuPont and Monsanto into depressed pricing and unattractive economics. Monsanto and DuPont developed lower cost processes in order to better compete with the import problem. Monsanto elected to eliminate the drawing step and produce undrawn nylon. DuPont has imparted a partial draw in spinning, a process which has resulted in significant advantages over Monsanto's process.

Monsanto held its share in overall apparel in 1977. Strategy in 1978 is to develop a major position in undrawn nylon apparel for saturating and hold share in this no growth apparel market. Sales and performance income are budgeted to show modest increases in 1978.

0683212

NYLON-CARPET
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
World-Wide					
Sales	96.7	107.2	161.9	182.0	211.1
Gross Profit	31.6	20.7	44.7	29.4	38.0
MAT	5.3	6.6	8.8	9.9	11.8
Performance Income	24.9	12.4	33.6	18.1	23.7
Net Income	12.8	5.7	16.9	8.2	10.2
Capital Employed	54.1	81.9	103.0	142.9	160.1
% ROC	23.6	7.0	16.4	5.7	6.4
As a % of Sales:					
Gross Profit	32.7	19.3	27.6	16.2	18.0
MAT	5.5	6.1	5.4	5.4	5.6
Performance Income	25.7	11.6	20.7	9.9	11.2
Net Income	13.2	5.3	10.4	4.5	4.8
U.S. and Export					
Sales	96.7	107.2	161.9	182.0	211.1
Gross Profit	31.6	20.7	44.7	29.4	38.0
MAT	5.3	6.6	8.8	9.9	11.8
Performance Income	24.9	12.4	33.6	18.1	23.7
Net Income	12.8	5.7	16.9	8.2	10.2
Capital Employed	54.1	81.9	103.0	142.9	160.1
% ROC	23.6	7.0	16.4	5.7	6.4
As a % of Sales:					
Gross Profit	32.7	19.3	27.6	16.2	18.0
MAT	5.5	6.1	5.4	5.4	5.6
Performance Income	25.7	11.6	20.7	9.9	11.2
Net Income	13.2	5.3	10.4	4.5	4.8
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

0683213

NYLON CARPET
AMOUNTS IN MILLIONS

	Actual				Budget
	1978	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	3.6	3.8
Gross Property Additions	-	-	-	15.1	5.9
Gross Property Retirements	-	-	-	3.3	2.2
Fixed Capital	-	-	-	236.4	260.7
Working Capital	-	-	-	42.6	52.4
Gross Investment	133.9	189.5	232.5	279.0	313.1
Avg Selling Price/Unit (Merchant)	.798	.746	.782	.722	.717
Avg Cost/Unit	.537	.602	.566	.605	.588
Total Production - MM Units	120.2	126.6	196.9	245.5	302.1
Total Capacity - MM Units	120.9	156.7	196.9	278.3	314.6
Percent Utilization - %	99	81	100	88	96
Merchant Sales - MM Units	121.1	143.7	207.1	252.1	294.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	121.1	143.7	207.1	252.1	294.5
Market Share (M/R) - %	16.3	20.7	17.6	18.3	20.0
U.S. & Export					
Depreciation	-	-	-	3.6	3.8
Gross Property Additions	-	-	-	15.1	5.9
Gross Property Retirements	-	-	-	3.3	2.2
Fixed Capital	-	-	-	236.4	260.7
Working Capital	-	-	-	42.6	52.4
Gross Investment	133.9	189.5	232.5	279.0	313.1
Avg Selling Price/Unit (Merchant)	.798	.746	.782	.722	.717
Avg Cost/Unit	.537	.602	.566	.605	.588
Total Production - MM Units	120.2	126.6	196.9	245.5	302.1
Total Capacity - MM Units	120.9	156.7	196.9	278.3	314.6
Percent Utilization - %	99	81	100	88	96
Merchant Sales - MM Units	121.1	143.7	207.1	252.1	294.5
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	121.1	143.7	207.1	252.1	294.5
Market Share (M/R) - %	16.3	20.7	17.6	18.3	20.0
U.S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg Selling Price/Unit (Merchant)	-	-	-	-	-
Avg Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (M/R) - %	-	-	-	-	-

COMMENTS:

Monsanto's nylon carpet business consists of bulked continuous filament (BCF) and staple fibers. Our major growth area continues to be carpet staple where our strategy is to grow from 25% share in 1976 to 30% share by 1980. Our strategy for filament is to maximize cash flow by holding market share at 10 to 12% with volume growth provided by debottlenecking existing facilities at nominal cost. The carpet staple goal will be achieved by aggressive marketing, using our low cost intermediation position, and through low capital cost for capacity expansion. Three producers supply over 70% of carpet staple. Monsanto became the leader in 1977 with 25.4% share followed by duPont at 24% and Allied at 22%. DuPont is the dominant leader in carpet filament. Our major carpet customers are West Point Pepprel, Candivick Yarn, Mohasco and Hollytex.

Market share in carpet staple is budgeted up from 25% in 1977 to 28% in 1978. To accomplish this our sales volume is budgeted to increase 16%. Performance income will increase 10%, mostly because of this volume increase and a modest increase in filament volume.

0683214

NYLON-INDUSTRIAL
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	98.6	87.4	89.6	81.2	84.3
Gross Profit	26.7	20.0	24.5	17.1	18.9
MAT	4.1	3.4	3.3	3.2	3.0
Performance Income	21.3	15.5	19.7	13.1	14.6
Net Income	10.8	7.5	9.9	6.3	6.8
Capital Employed	48.5	57.1	64.4	52.2	56.7
% ROC	22.3	13.1	15.4	12.1	12.0
As a % of Sales:					
Gross Profit	27.1	22.9	27.3	21.1	22.4
MAT	4.2	3.9	3.7	3.9	3.6
Performance Income	21.6	17.7	22.0	16.1	17.3
Net Income	11.0	8.6	11.0	7.8	8.1
U.S. and Export					
Sales	98.6	87.4	89.6	81.2	84.3
Gross Profit	26.7	20.0	24.5	17.1	18.9
MAT	4.1	3.4	3.3	3.2	3.0
Performance Income	21.3	15.5	19.7	13.1	14.6
Net Income	10.8	7.5	9.9	6.3	6.8
Capital Employed	48.5	57.1	64.4	52.2	56.7
% ROC	22.3	13.1	15.4	12.1	12.0
As a % of Sales:					
Gross Profit	27.1	22.9	27.3	21.1	22.4
MAT	4.2	3.9	3.7	3.9	3.6
Performance Income	21.6	17.7	22.0	16.1	17.3
Net Income	11.0	8.6	11.0	7.8	8.1
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

0683215

NYLON - INDUSTRIAL
 AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	4.1	4.3
Gross Property Additions	-	-	-	1.6	1.1
Gross Property Retirements	-	-	-	2.1	-
Fixed Capital	-	-	-	121.4	115.0
Working Capital	-	-	-	14.8	18.8
Gross Investment	126.6	132.2	150.9	136.2	133.8
Avg. Selling Price/Unit (Merchant)	.876	.982	1.042	1.081	1.738
Avg. Cost/Unit	.619	.757	.757	.854	.849
Total Production - MM Units	117.5	82.8	89.7	73.2	75.6
Total Capacity - MM Units	137.5	115.0	118.9	107.2	97.4
Percent Utilization - %	85	72	75	68	78
Merchant Sales - MM Units	112.5	89.0	86.0	75.1	77.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	112.5	89.0	86.0	75.1	77.0
Market Share (MM) - %	27.8	25.7	24.3	24.9	25.6
U.S. & Export					
Depreciation	-	-	-	4.1	4.3
Gross Property Additions	-	-	-	1.6	1.1
Gross Property Retirements	-	-	-	2.1	-
Fixed Capital	-	-	-	121.4	115.0
Working Capital	-	-	-	14.8	18.8
Gross Investment	126.6	132.2	150.9	136.2	133.8
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Total Production - MM Units	117.5	82.8	89.7	73.2	75.6
Total Capacity - MM Units	137.5	115.0	118.9	107.2	97.4
Percent Utilization - %	85	72	75	68	78
Merchant Sales - MM Units	112.5	89.0	86.0	75.1	77.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	112.5	89.0	86.0	75.1	77.0
Market Share (MM) - %	27.8	25.7	24.3	24.9	25.6
East & Africa					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

The major end use in the industrial area is nylon tire yarn. The filament tire yarn market is static as steel has made significant inroads into the tire market. Three producers supply over 80% of the volume, led by DuPont with 48%, followed by Monsanto with 25%, Allied with 10% and others representing the balance. DuPont determines the market pricing at a level which permits a reasonable profit. Allied, however, periodically prices below market to select customers. This strategy took share from Monsanto at Goodyear in 1977. Major customers are General Tire, Goodrich, Firestone, Cooper and Armstrong.

No significant trends in product requirements are projected in the near future. All nylon producers led by Monsanto, however, are working to have nylon accepted in radial passenger tires instead of steel.

Sales and performance income are budgeted to improve modestly in 1978 mainly because of increased volume. Our strategy for tire yarn will be to maximize cash flow.

0683216

NYLON-EUROPE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	81.6	90.7	82.9	78.9	84.0
Gross Profit	14.8	0.4	(3.0)	(15.4)	(7.5)
MAT	5.9	7.1	7.8	7.9	7.8
Performance Income	6.5	(8.9)	(14.6)	(26.1)	(18.3)
Net Income	2.5	(11.1)	(17.1)	(25.1)	(15.5)
Capital Employed	74.2	87.0	108.4	80.7	73.5
% ROC	3.4	-	-	-	-
As a % of Sales:					
Gross Profit	18.1	0.4	(3.6)	(19.5)	(8.9)
MAT	7.2	7.8	9.4	10.0	9.3
Performance Income	8.0	(9.8)	(17.6)	(33.1)	(21.8)
Net Income	3.1	(12.2)	(20.6)	(31.8)	(18.5)
U.S. and Export					
Sales	4.0	5.7	5.3	4.1	-
Gross Profit	1.6	1.4	1.2	0.9	-
MAT	0.2	0.5	0.4	0.3	-
Performance Income	1.4	1.0	0.8	0.5	-
Net Income	0.6	0.5	0.4	0.4	-
Capital Employed	4.1	4.2	5.2	3.0	-
% ROC	12.1	11.9	7.7	13.3	-
As a % of Sales:					
Gross Profit	40.0	24.6	22.6	22.0	-
MAT	5.0	8.8	7.5	7.3	-
Performance Income	35.0	17.5	15.1	12.2	-
Net Income	15.0	8.9	7.5	9.8	-
Ex-U.S.A.					
Sales	77.6	85.0	77.6	44.8	84.0
Gross Profit	13.2	(1.0)	(4.2)	(16.3)	(7.5)
MAT	5.7	6.6	7.4	7.6	7.8
Performance Income	5.1	(9.9)	(15.4)	(26.6)	(18.3)
Net Income	1.9	(11.6)	(17.5)	(25.5)	(15.5)
Capital Employed	69.3	82.8	103.2	77.7	73.5
% ROC	2.7	-	-	-	-
As a % of Sales:					
Gross Profit	17.0	(1.2)	(5.4)	(21.8)	(8.9)
MAT	7.3	7.7	9.5	10.1	9.3
Performance Income	6.6	(11.6)	(19.8)	(35.5)	(21.8)
Net Income	2.4	(13.6)	(22.6)	(34.1)	(18.5)

0683217

NYLON-EUROPE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	-	-	-	7.1	5.2
Gross Property Additions	-	-	-	1.8	1.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	113.0	114.4
Working Capital	-	-	-	26.8	11.7
Gross Investment	107.7	133.2	139.4	139.8	126.1
Avg Selling Price/Unit (Merchant)	1.383	1.338	1.317	1.367	1.414
Avg Cost/Unit	1.132	1.332	1.365	1.634	1.540
Total Production - MM Units	59.9	58.5	61.9	54.9	58.9
Total Capacity - MM Units	72.0	74.6	74.2	72.8	68.4
Percent Utilization - %	83	78	83	75	86
Merchant Sales - MM Units	59.0	67.8	62.9	57.7	59.6
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	59.0	67.8	62.9	57.7	59.4
Market Share (Mkt) - %	5.0	5.5	5.5	5.1	5.1
U.S. & Export					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	3.0	-
Working Capital	-	-	-	-	-
Gross Investment	4.9	4.2	5.2	3.0	-
Avg Selling Price/Unit (Merchant)	1.262	1.087	1.325	1.640	-
Avg Cost/Unit	.739	.621	1.025	1.280	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	3.1	5.2	4.9	2.5	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	3.1	5.2	4.9	2.5	-
Market Share (Mkt) - %	-	-	-	-	-
Excl. U.S. & Export					
Depreciation	-	-	-	7.1	5.2
Gross Property Additions	-	-	-	1.8	1.4
Gross Property Retirements	-	-	-	0.5	-
Fixed Capital	-	-	-	110.0	114.4
Working Capital	-	-	-	26.8	11.7
Gross Investment	102.8	129.0	134.2	136.8	126.1
Avg Selling Price/Unit (Merchant)	1.388	1.364	1.317	1.356	1.414
Avg Cost/Unit	1.152	1.380	1.388	1.632	1.540
Total Production - MM Units	59.9	58.5	61.9	54.9	58.9
Total Capacity - MM Units	72.0	74.6	74.2	72.8	68.4
Percent Utilization - %	83	78	83	75	86
Merchant Sales - MM Units	55.9	62.3	58.9	55.1	59.4
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	55.9	62.3	58.9	55.1	59.4
Market Share (Mkt) - %	5.0	5.5	5.5	5.1	5.1

COMMENTS:

Monsanto serves two markets in Europe, SCF carpet yarns and textured apparel yarns. There are 64 nylon producers in Europe - Monsanto is the ninth largest producer, one-fifth the size of the market leader, AKZO. Major competitors in the apparel market are ICI, Rhone-Poulenc and HEP. In the carpet market our competitors are duPont, AKZO and ICI.

Heavy competition and over capacity have resulted in disastrous results since 1974. A plan to cope with the situation was approved in the third quarter 1977, which resulted in the closure of Trailblazer facilities and shut down of the drawtext department of the Echternach plant. The associated closure costs were 3.4 million dollars. The 1977 performance loss of 26.1 million dollars was the worst in Textiles Europe's history. The present major strategy will be to run nylon Europe as a wasting asset optimizing see-through incremental cash flow.

The 1978 budget reflects a belief that nylon prices have bottomed out and modest recovery will occur in 1978. The improvement in budgeted performance income results from the price increases, some improvement in volumes and the absence of write-offs taken in 1977.

0683218

NYLON-OTHER
AMOUNTS IN MILLIONS

	Actual				Budget 1978
	1974	1975	1976	1977	
<u>World-Wide</u>					
Sales	8.5	4.0	6.1	7.2	10.3
Gross Profit	4.9	5.8	1.2	0.6	0.1
MAT	4.0	4.2	1.4	2.1	1.2
Performance Income	0.9	(0.5)	-	(1.4)	(0.7)
Net Income	0.4	(0.4)	-	(0.9)	(0.4)
Capital Employed	-	-	-	0.2	0.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
<u>U.S. and Export</u>					
Sales	8.5	4.0	6.1	7.2	10.3
Gross Profit	4.3	5.8	1.2	1.6	0.1
MAT	4.0	4.2	1.4	3.1	1.2
Performance Income	0.9	(0.5)	-	(1.4)	(0.7)
Net Income	0.4	(0.4)	-	(0.9)	(0.4)
Capital Employed	-	-	-	0.2	0.2
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
<u>Ex-U.S.A.</u>					
Sales	-	-	-	-	-
Gross Profit	-	-	-	(1.0)	-
MAT	-	-	-	(1.0)	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

0683219

POLYESTER CONTINUOUS FILAMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	101.0	83.1	71.7	69.3	125.1
Gross Profit	22.3	7.7	(25.2)	(3.1)	5.6
MAT	11.2	11.3	12.9	12.0	17.1
Performance Income	7.7	(6.2)	(40.1)	(16.9)	(14.0)
Net Income	2.5	(5.5)	(23.8)	(10.8)	(9.5)
Capital Employed	106.3	142.6	128.9	186.0	184.2
% ROC	2.4	-	-	-	-
As a % of Sales:					
Gross Profit	22.1	9.3	(35.1)	(4.5)	4.5
MAT	11.1	13.6	17.9	17.3	13.7
Performance Income	7.6	(7.5)	(55.9)	(24.4)	(11.2)
Net Income	2.5	(6.7)	(33.2)	(15.6)	(7.6)
U.S. and Export					
Sales	101.0	83.1	71.7	69.3	125.1
Gross Profit	22.3	7.7	(25.2)	(3.1)	5.6
MAT	11.2	11.3	12.9	12.0	17.1
Performance Income	7.7	(6.2)	(40.1)	(16.9)	(14.0)
Net Income	2.5	(5.5)	(23.8)	(10.8)	(9.5)
Capital Employed	106.3	142.6	128.9	186.0	184.2
% ROC	2.4	-	-	-	-
As a % of Sales:					
Gross Profit	22.1	9.3	(35.1)	(4.5)	4.5
MAT	11.1	13.6	17.9	17.3	13.7
Performance Income	7.6	(7.5)	(55.9)	(24.4)	(11.2)
Net Income	2.5	(6.7)	(33.2)	(15.6)	(7.6)
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Plant	Millions
Sand Mountain	115.1
Fayetteville	105.0
	<u>220.1</u>

0683220

POLYESTER CONTINUOUS FILAMENT
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Depreciation	3.1	6.1	11.5	10.0	13.8
Gross Property Additions	30.1	46.4	5.0	59.9	5.3
Gross Property Retirements	4.9	0.3	18.3	1.1	0.5
Fixed Capital	112.3	148.5	143.6	196.5	202.9
Working Capital	15.8	26.5	19.3	28.2	38.7
Gross Investment	126.1	173.0	162.9	224.7	241.6
Avg. Selling Price/Unit (Merchant)	1.633	.921	.683	.661	.834
Avg. Cost/Unit	1.288	.836	.923	.691	.797
Total Production - MM Units	70.3	88.2	110.0	113.6	162.2
Total Capacity - MM Units	83.4	92.8	141.6	143.1	220.1
Percent Utilization - %	84	90	78	79	74
Merchant Sales - MM Units	61.1	90.2	105.0	104.8	150.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	61.1	90.2	105.0	104.8	150.0
Market Share (Mill) - %	5.9	7.4	9.8	9.2	13.2
U.S. & Export					
Depreciation	3.1	6.1	11.5	10.0	13.8
Gross Property Additions	30.1	46.4	5.0	59.9	5.3
Gross Property Retirements	0.9	0.3	18.3	1.1	0.5
Fixed Capital	112.3	148.5	143.6	196.5	202.9
Working Capital	15.8	26.5	19.3	28.2	38.7
Gross Investment	128.1	173.0	162.9	224.7	241.6
Avg. Selling Price/Unit (Merchant)	1.633	.921	.683	.661	.834
Avg. Cost/Unit	1.288	.836	.923	.691	.797
Total Production - MM Units	70.3	88.2	110.0	113.6	162.2
Total Capacity - MM Units	83.4	92.8	141.6	143.1	220.1
Percent Utilization - %	84	90	78	79	74
Merchant Sales - MM Units	61.1	90.2	105.0	104.8	150.0
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	61.1	90.2	105.0	104.8	150.0
Market Share (Mill) - %	5.9	7.4	9.8	9.2	13.2
EUROPE					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (Mill) - %	-	-	-	-	-

COMMENTS:

The financial results of polyester continuous filament reported here include the Tuscaloosa plant operations of Olympia Industries purchased in 1974, the acquisition of Fayetteville facilities from Rohm and Haas in December, 1977, as well as the Sand Mountain plant. The Tuscaloosa plant was shut down in 1976 with a resultant pre-tax loss of 12.4 million dollars.

Monemco's long term strategy is to become the second largest supplier of CPPE behind duPont, with a minimum acceptable position of a close number three behind Celanese. The strategy encompasses a concentration on those major customers who will grow at a faster than industry average. At present our major customers are Milliken, Macfield, Unifil and Burlington.

Performance income is budgeted to again be negative because of heavy start-up and idle plant costs at Fayetteville and increased MGT. Shipments and selling prices are budgeted to show improvement over 1977. However, actual results through the first quarter of 1978 are well below budget in both categories. Moreover, duPont announced a price reduction in early April which will further depress income. Our April forecast for the year now shows a performance loss of 36 million dollars.

0683221

POLYESTER STAPLE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	23.6	30.7	37.2	47.3	44.7
Gross Profit	4.0	0.5	3.5	7.3	5.2
MAT	3.0	2.5	2.5	2.2	1.8
Performance Income	1.3	(2.2)	0.4	4.5	2.8
Net Income	0.4	(1.5)	(0.2)	2.2	1.2
Capital Employed	23.8	20.8	22.7	19.9	21.0
% ROC	1.7	-	-	11.1	5.7
As a % of Sales:					
Gross Profit	16.9	1.6	9.9	15.4	11.6
MAT	12.7	8.1	6.8	4.7	4.0
Performance Income	5.5	(7.2)	1.1	9.5	6.3
Net Income	1.7	(4.9)	(0.5)	4.7	2.7
U.S. and Export					
Sales	23.6	30.7	37.2	47.3	44.7
Gross Profit	4.0	0.5	3.5	7.3	5.2
MAT	3.0	2.5	2.5	2.2	1.8
Performance Income	1.3	(2.2)	0.4	4.5	2.8
Net Income	0.4	(1.5)	(0.2)	2.2	1.2
Capital Employed	23.8	20.8	22.7	19.9	21.0
% ROC	1.7	-	-	11.1	5.7
As a % of Sales:					
Gross Profit	16.9	1.6	9.9	15.4	11.6
MAT	12.7	8.1	6.8	4.7	4.0
Performance Income	5.5	(7.2)	1.1	9.5	6.3
Net Income	1.7	(4.9)	(0.5)	4.7	2.7
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

Plant	Millions
Decatur	97.0

0603222

POLYESTER STAPLE
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	5.0	2.7	1.6	1.8	1.5
Gross Property Additions	4.6	2.3	0.8	0.7	-
Gross Property Retirements	0.1	0.2	-	0.1	-
Fixed Capital	39.1	30.8	34.3	35.3	36.4
Working Capital	4.7	6.8	10.1	8.1	9.4
Gross Investment	43.8	37.6	44.4	43.4	45.8
Avg. Selling Price Unit (Merchant)	.447	.445	.501	.527	.518
Avg. Cost Unit	.375	.438	.453	.446	.458
Total Production - MM Units	55.5	65.0	75.0	91.3	94.0
Total Capacity - MM Units	96.5	93.8	89.5	100.4	97.0
Percent Utilization - %	41	69	84	91	97
Merchant Sales - MM Units	51.3	69.0	73.7	89.7	86.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	51.3	69.0	73.7	89.7	86.3
Market Share (M/I) - %	3.6	5.3	4.6	8.6	7.8
U.S. & Export					
Depreciation	5.0	2.7	1.6	1.8	1.5
Gross Property Additions	4.6	2.3	0.8	0.7	-
Gross Property Retirements	0.1	0.2	-	0.1	-
Fixed Capital	39.1	30.8	34.3	35.3	36.4
Working Capital	4.7	6.8	10.1	8.1	9.4
Gross Investment	43.8	37.6	44.4	43.4	45.8
Avg. Selling Price Unit (Merchant)	.447	.445	.501	.527	.518
Avg. Cost Unit	.375	.438	.453	.446	.458
Total Production - MM Units	55.5	65.0	75.0	91.3	94.0
Total Capacity - MM Units	96.5	93.8	89.5	100.4	97.0
Percent Utilization - %	41	69	84	91	97
Merchant Sales - MM Units	51.3	69.0	73.7	89.7	86.3
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	51.3	69.0	73.7	89.7	86.3
Market Share (M/I) - %	3.6	5.3	4.6	8.6	7.8
Excl. S.A.					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price Unit (Merchant)	-	-	-	-	-
Avg. Cost Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (M/I) - %	-	-	-	-	-

COMMENTS:

Polyester staple has been one of the major growth areas in the synthetic fiber industry. Monsanto, however, has not been a major supplier of the fiber and does not plan to become one. The important producers are duPont, Eastman and Celanese. Our major thrust is in apparel with minor sales in industrial markets.

The 1977 results were a pleasant surprise. Sales were 11% over budget, and performance income was 4.5 million dollars as compared with a budget of 0.6 million dollars. Selling prices averaged higher than budget and last year, and unit cost was down, primarily because of favorable raw material cost for terephthalic acid. Performance income in 1978 is budgeted to decrease as costs will increase and shipments are forecast to decrease. However, early 1978 actual results indicate that the product will again be a pleasant surprise with performance income now forecast to be in the 7 - 8 million dollar range.

Deering Milliken is our major customer, with Graniteville somewhat behind in second place and J. P. Stevens a distant third.

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NONWOVENS

AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World-Wide					
Sales	11.6	10.8	12.1	13.0	13.8
Gross Profit	3.0	0.8	(0.3)	0.2	0.1
MAT	4.6	5.7	5.9	6.3	6.7
Performance Income	(1.9)	(5.0)	(6.2)	(6.2)	(6.8)
Net Income	(1.2)	(2.9)	(3.5)	(3.6)	(3.8)
Capital Employed	12.2	15.7	18.7	23.6	22.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	25.8	7.4	(2.5)	1.5	0.7
MAT	39.7	52.8	48.8	48.5	48.6
Performance Income	(16.4)	(46.3)	(51.2)	(47.7)	(49.3)
Net Income	(10.3)	(26.9)	(28.9)	(27.7)	(27.5)
U.S. and Export					
Sales	11.6	10.8	12.1	13.0	13.8
Gross Profit	3.0	0.8	(0.3)	0.2	0.1
MAT	4.6	5.7	5.9	6.3	6.7
Performance Income	(1.9)	(5.0)	(6.2)	(6.2)	(6.8)
Net Income	(1.2)	(2.9)	(3.5)	(3.6)	(3.8)
Capital Employed	12.2	15.7	18.7	23.6	22.1
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	25.8	7.4	(2.5)	1.5	0.7
MAT	39.7	52.8	48.8	48.5	48.6
Performance Income	(16.4)	(46.3)	(51.2)	(47.7)	(49.3)
Net Income	(10.3)	(26.9)	(28.9)	(27.7)	(27.5)
Ex-U.S.A.					
Sales	-	-	-	-	-
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-
Capital Employed	-	-	-	-	-
% ROC	-	-	-	-	-
As a % of Sales:					
Gross Profit	-	-	-	-	-
MAT	-	-	-	-	-
Performance Income	-	-	-	-	-
Net Income	-	-	-	-	-

WORLD-WIDE MANUFACTURING PLANT LOCATIONS AND CAPACITIES:

0683224

NONWOVENS
AMOUNTS IN MILLIONS

	Actual				Budget
	1974	1975	1976	1977	1978
World Wide					
Depreciation	-	-	-	0.6	0.6
Gross Property Additions	-	-	-	1.8	0.5
Gross Property Retirements	-	-	-	0.3	-
Fixed Capital	-	-	-	33.6	31.5
Working Capital	-	-	-	4.8	5.4
Gross Investment	29.6	24.7	30.2	38.4	36.9
Avg. Selling Price/Unit (Merchant)	2.000	2.018	2.161	2.131	2.029
Avg. Cost/Unit	1.483	1.587	2.214	2.098	2.015
Total Production - MM Units	5.4	5.1	5.2	5.5	6.3
Total Capacity - MM Units	6.1	9.0	9.0	9.1	9.4
Percent Utilization - %	89	57	58	60	67
Merchant Sales - MM Units	5.8	5.3	5.6	6.1	6.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	5.8	5.3	5.6	6.1	6.8
Market Share (MM) - %	22.0	19.0	23.0	26.0	26.0
U.S. & Europe					
Depreciation	-	-	-	0.6	0.6
Gross Property Additions	-	-	-	1.8	0.5
Gross Property Retirements	-	-	-	0.3	-
Fixed Capital	-	-	-	33.6	31.5
Working Capital	-	-	-	4.8	5.4
Gross Investment	11.6	20.7	30.2	38.4	36.9
Avg. Selling Price/Unit (Merchant)	2.000	2.038	2.161	2.131	2.029
Avg. Cost/Unit	1.483	1.887	2.214	2.098	2.015
Total Production - MM Units	5.4	5.1	5.2	5.5	6.3
Total Capacity - MM Units	6.1	9.0	9.0	9.1	9.4
Percent Utilization - %	89	57	58	60	67
Merchant Sales - MM Units	5.8	5.3	5.6	6.1	6.8
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	5.8	5.3	5.6	6.1	6.8
Market Share (MM) - %	22.0	19.0	23.0	26.0	26.0
Ex-Japan					
Depreciation	-	-	-	-	-
Gross Property Additions	-	-	-	-	-
Gross Property Retirements	-	-	-	-	-
Fixed Capital	-	-	-	-	-
Working Capital	-	-	-	-	-
Gross Investment	-	-	-	-	-
Avg. Selling Price/Unit (Merchant)	-	-	-	-	-
Avg. Cost/Unit	-	-	-	-	-
Total Production - MM Units	-	-	-	-	-
Total Capacity - MM Units	-	-	-	-	-
Percent Utilization - %	-	-	-	-	-
Merchant Sales - MM Units	-	-	-	-	-
Intercompany Sales - MM Units	-	-	-	-	-
Total - MM Units	-	-	-	-	-
Market Share (MM) - %	-	-	-	-	-

COMMENTS:

Nonwovens as presented here include Carax and the developmental portions of the nonwovens business (Bidin, Point Bonded Nylon and new synthetics). Bidin is a heavyweight needle punched, polyester fabric for civil engineering and uses. Point Bonded Nylon is a significant modification of Carax, our spunbonded nylon 6, 6 fabric.

At the present time Carax makes up most of the Nonwovens' sales. The major competition is Raymer, duPont's polyester spunbonded product, whose sales are three times sales of Carax. Raymer is sold in markets where nylon cannot be used. High growth in Carax is not expected.

Point Bonded Nylon (PBN) is our candidate to expand our position in industrial markets. Competition will be woven fabrics of natural and synthetic fibers. Bidin has been developed by Rhodia-Poulenc from whom we acquired exclusive North American rights to manufacture and sell the product. Performance income for Nonwovens will remain negative at least through 1980 because of relatively high technical expense for PBN and Bidin prior to commercially acceptable sales volumes.

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Minor Products/Eliminations

AMOUNTS IN MILLIONS

	1976	1977	1978 Budget
	Products	Products	Products
World-Wide			
Sales	41.6	46.1	43.3
Gross Profit	6.5	4.9	8.8
MAT	4.3	4.6	3.5
Performance Income	0.7	(1.0)	4.0
Net Income	-	(3.1)	1.8
Capital Employed	44.1	29.4	28.9
% PROC	-	-	6.2
Fixed Capital	49.2	21.7	22.4
Working Capital	11.0	19.4	19.8
U.S. & Export			
Sales	28.7	35.2	43.3
Gross Profit	4.7	8.8	8.8
MAT	3.2	3.5	3.5
Performance Income	0.8	6.5	4.0
Net Income	-	2.2	1.8
Capital Employed	36.2	29.4	28.9
% PROC	-	-	6.2
Fixed Capital	39.4	21.7	22.4
Working Capital	10.0	19.4	19.8
Ex-U.S.A.			
Sales	12.9	10.9	-
Gross Profit	1.8	(3.9)	-
MAT	1.1	1.1	-
Performance Income	0.1	(5.5)	-
Net Income	(0.1)	(5.3)	-
Capital Employed	7.9	-	-
% PROC	-	-	-
Fixed Capital	9.8	-	-
Working Capital	1.0	-	-

Form IV

COMMENTS:

In order to preserve the reporting integrity of the major fiber product lines, operations that do not make a good fit have been aggregated as "Other". These include the reconstituted Hale Manufacturing Company, Olympia fabric operations at Spartanburg, South Carolina and Israel Chemical Fibres.

The most significant development here was the decision made in 1977 to withdraw from operation at ICF with a resultant write-off of 4.5 million dollars. There are no financial results budgeted for ICF in 1978.

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