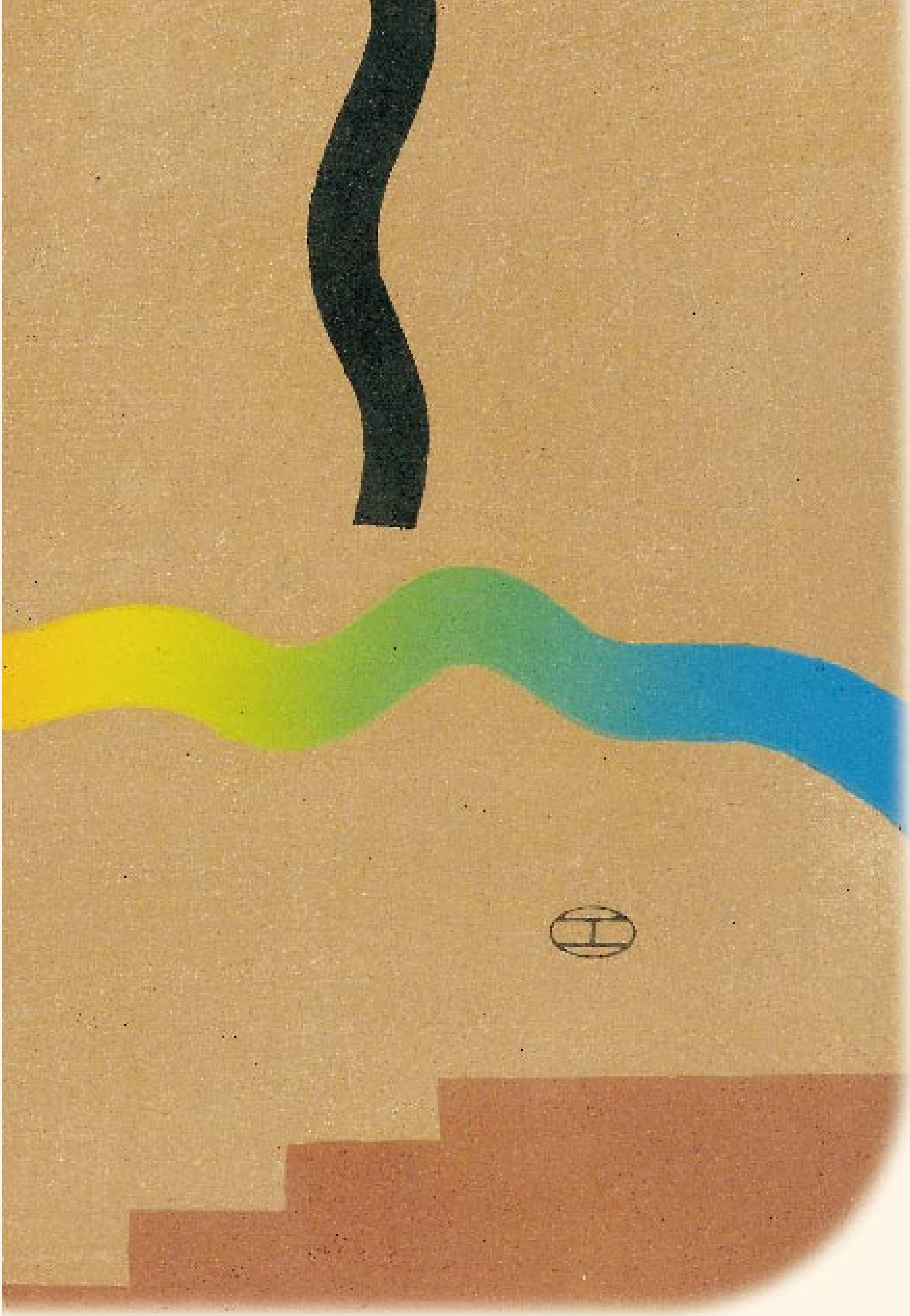


KEMIRA

Annual Report 1998

KEMIRA ANNUAL REPORT 1998

CONTENTS

Cover: Erkki Hervo, 2/86, graphics print (detail). © Kuvasto 1998

ANNUAL GENERAL MEETING

The Annual General Meeting of Kemira Oyj will be held on Wednesday, 7 April 1999 at 4.00 p.m. in the Kemira House, Porkkalankatu 3, 00180 Helsinki. Attendance is open to shareholders who by 2 April 1999 have been entered in the company's Shareholders' Register which is kept by Finnish Central Securities Depository Ltd and have given notification of their intention to attend the meeting no later than by 6 April 1999, 12 noon. Shareholders wishing to attend the meeting are kindly requested to register with
- Ms Arja Korhonen, Kemira Oyj, P.O. Box 330, FIN-00101 Helsinki, Finland; telefax +358 10 862 1375; telephone +358 10 862 1703 on weekdays from 8.00 a.m. to 4.00 p.m; e-mail arja.korhonen@kemira.com
- or with Ms Seija Mörsky, telephone +358 10 862 1711 on weekdays from 8.00 a.m. to 4.00 p.m.

The proposal of the Board of Directors of Kemira Oyj for the dividend to be paid out for the 1998 financial year is FIM 1.70 per share. The record date of the dividend payment is 12 April 1999 and the date of the payment in Finland is 20 April 1999.

PROFIT AND LOSS INFORMATION

Kemira will publish information on its 1999 financial year in Finnish, Swedish and English as follows:

Interim Report 4 months	8 June 1999
Interim Report 8 months	6 October 1999
Financial Statement Bulletin	February 2000
Annual Report	March 2000

These reports can be ordered from Kemira Oyj, Group Communications, tel. +358 10 8611, fax +358 10 862 1797 or by e-mail at airi.apell@kemira.com

Financial statement bulletins and press releases will be published in Finnish and English also on the Group's Internet pages at the address http://www.kemira.com

INVESTOR RELATIONS

Kemira Oyj
Kaj Friman, Vice President, Treasury and Group Communications, tel. +358 10 862 1704, e-mail: kaj.friman@kemira.com
Jarmo Lappalainen, IR-analyst, tel. +358 10 862 1795, fax + 358 10 862 1785, e-mail: jarmo.lappalainen@kemira.com

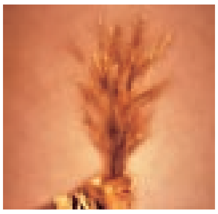
This report is a translation of the Finnish-language Annual Report.

OPERATIONAL PRINCIPLES

Kemira is an international chemical group that supplies its customers with tailor-made and quality products and services. In its operations, Kemira observes good business practices and principles that respect the environment.

OBJECTIVES

Kemira's prime objective is satisfied customers and good profitability in all the company's business areas with the aim of increasing shareholder value. Kemira strives to be a major player worldwide in its main business areas. It achieves this through motivated, multiskilled personnel and superior technology, and by means of innovative solutions for assuring sustainable development.



STRATEGY

Kemira's strategy is to seek profitable and controlled growth for its main businesses in both present and new market areas. This can be achieved by directing capital expenditures at selected growth areas, exploiting the Group's technology and quality management, stressing the importance of environmentally acceptable products, tapping the Group's internal synergy advantages, improving efficiency and strengthening the Group's financial position.

FINANCIAL TARGETS

	Target	1998	1997	1996	1995
Growth of main business areas, %	5	1	11	3	4
Return on equity, %	14	8.3	11.9	13.5	13.9
Operating income, % of net sales	10	6.1	8.2	9.3	10.1
Gearing, %	50–30	48	44	49	56
Interest cover	>7	6.3	6.9	5.6	3.8

BUSINESS AREAS

KEMIRA CHEMICALS

Kemira Chemicals is a major producer of chemicals for the pulp and paper industry and a manufacturer of other industrial chemicals. It is also the leading European manufacturer of water treatment chemicals. It has production facilities in 24 countries. Net sales in 1998 were FIM 3,744 million, or 25% of the Group's net sales. Operating income was FIM 447 million, or 50% of the operating income of the main business areas. The number of personnel at the end of the year was 3,066 people.

KEMIRA PIGMENTS

Kemira Pigments is the sixth largest manufacturer of titanium dioxide pigments in the world. Its plants are located in Finland, the Netherlands and the United States. The main users of its products are the paint, paper and plastics industries.

Net sales in 1998 were FIM 2,514 million, or 17% of consolidated net sales. Operating income was FIM 132 million, or 15% of the operating income of the main business areas. The number of personnel at the end of the year was 1,755 people.

KEMIRA AGRO

Kemira Agro is Europe's second largest producer of plant nutrients. It has production facilities in 10 countries. The main products are crop and horticultural nutrients as well as process chemicals. Net sales in 1998 were FIM 6,126 million, or 41% of consolidated net sales. Operating income was FIM 111 million, or 13% of the operating income for the Group's main business areas. The number of personnel at the end of the year was 2,948 people.

TIKKURILA

Tikkurila is one of Europe's leading paint manufacturers. Its main products are tinting systems, decorative paints, wood finishes and coatings for the metal industry. Tinting systems and colourants are a fast-growing area in which Tikkurila is at the forefront of technological development worldwide. Tikkurila has production facilities in 14 countries. Net sales in 1998 were FIM 2,143 million, or 14% of consolidated net sales. Operating income was FIM 194 million, or 22% of the operating income of the Group's main business areas. The number of personnel at the end of the year was 2,182 people.

OTHERS

Kemira Metalkat manufactures catalytic converters and Kemira Safety makes respiratory protective equipment. Kemira Oyj is the parent company of the Group, and it is responsible for the Group's strategic management, administration, finance and other corporate services as well as the sale of energy. These three companies had aggregate net sales in 1998 of FIM 452 million, representing 3% of consolidated net sales. The number of personnel at the end of the year was 443 people.

SYNERGY

Kemira's different operating companies have an abundance of joint know-how and resources. These include chemistry and similar production technologies as well as a common base of raw materials, suppliers and customers. The possibility of utilizing the byproducts of production processes as raw materials in other business areas also brings significant additional synergy. In a number of cases, the companies' production plants are in the same localities and can make use of a common infrastructure. This further improves the efficiency of operations and the management of customer relationships.

CHAIRMAN'S REVIEW

1998 marked a turning point for the European chemical industry. Towards the end of the year the growth in the industry's net sales and its earnings ability weakened compared with the previous year. The chemical industry in the United States reflects the same trend.

CEFIC, the organization of the European chemical industry, has estimated growth in 1998 at about 2%, as against 4.7% a year earlier. Exports of chemicals remained at the level of the first part of the year, but imports were up 20% in the same period. The primary reason for the downturn was the economic situation in Asia, which reduced demand in the region and at the same time put more pressure on the Asian chemical industry to step up its exports. A similar effect stemmed from the economic crisis in Russia, which sent the rouble into sharp decline and thus improved the export competitiveness of Russian production, whilst weakening Russians' purchasing potential.

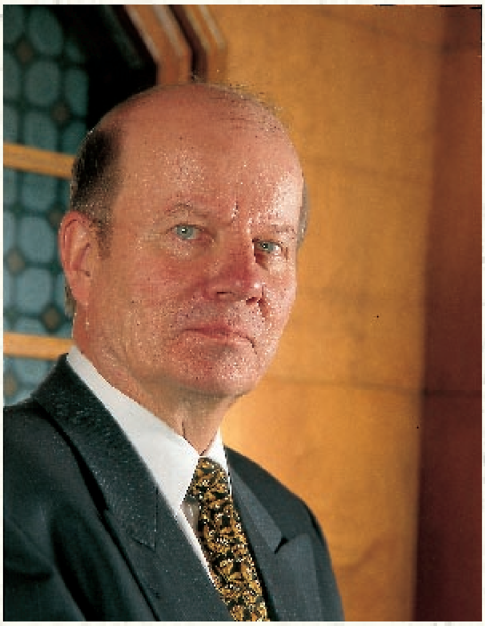


Photo: Sanna Liimatainen

During the past year Kemira pushed ahead with its intensive development of Kemira Chemicals and the Tikkurila CPS unit, which are growth areas for the Group. Kemira's result for 1998 compares well with the peer group in the basic chemical industry, though it did fall short of the previous year's all-time best result. Measured in terms of operating income, the last four months of the year were the weakest in a long time, since Kemira Agro and the paint business slipped somewhat. The price level of plant nutrients was not satisfactory and the paint business suffered from the fall in exports to Russia. Kemira Chemicals reached the profit level of the previous year and Kemira Pigments improved its earnings substantially. A positive result was that all the companies remained well in the black on an annual basis.

According to forecasts, the growth in world gross domestic product in 1999 looks as if it will be lower than a year ago and come in at around 1%. The United States and Western Europe will do better than the global average. This is good for Kemira because our production facilities are located mainly in these areas.

An important consideration from the standpoint of Kemira Agro – the Group's largest business area – is when the use of fertilizers in Russia will head upward and return to a sustainable level. This must happen fairly soon in order for Russia to retain at least some level of self-sufficiency in foodstuffs. As a consequence of the agricultural policy that was followed during the 1990s, Russia's harvests in 1998 were the weakest in 40 years. A growth in the use of fertilizers would reduce present exports to the West, thus improving the balance of fertilizer production and demand in Western Europe, and it would furthermore prop up Russia's trade balance by reducing imports of foodstuffs.

The share price of Kemira Oyj was FIM 52.60 at the beginning of the year and it later peaked at a record high of FIM 63.00. In the latter part of the year, the share price tracked the general trend of the Finnish process industry and the European basic chemical industry, falling sharply from its peak value. The price on the last trading day of the year was FIM 37.10.

The main challenges in 1999 are to improve the competitiveness of business operations – which is being accomplished by carrying out projects at our various subsidiaries – to assure a smooth introduction of the euro and to make the transition to the year 2000 without any unforeseen mishaps. I believe that our Kemira team will be successful in meeting all these challenges.

I wish to thank all our stakeholders for the support they have given us. Above all, I thank our Kemira employees, whose work contribution has made possible the result we have achieved in spite of more difficult circumstances.

Heimo Karinen
CEO
Chairman of the Board

BOARD OF DIRECTORS' REVIEW

The business environment in which the Kemira Group operates weakened markedly in 1998. Of the Group's divisions, Kemira Agro in particular faced difficult competition and Tikkurila's eastern trade came to virtually a complete halt after August. The continued good earnings reported by Kemira Chemicals contributed to bolstering the Group's profitability, as did the clear improvement in Kemira Pigments' result. The year was characterized by the fact that earnings weakened particularly in the last four months of the year. Net financial expenses declined somewhat compared with the previous year. Income before taxes and minority interests declined to FIM 579 million from FIM 864 million a year earlier. Income after taxes also fell short of the previous year's figure and was FIM 468 million (619 million in 1997). Earnings per share were FIM 3.6 (4.8 in 1997). The Board of Directors proposes that the dividend payout be maintained at the previous year's level of FIM 1.70 per share, or a total dividend payout of FIM 219 million.

The members of the Board of Directors of Kemira Oyj in 1998 were (from the left) Juhani Kari, Sten-Olof Hansén, Leif Ekström, Chairman Heimo Karinen, Vice Chairman Timo Mattila and Esa Tirkkonen. (Photograph: Hannu Bask)

NET SALES

Consolidated net sales were FIM 14,345 million (14,386 million in 1997). Net sales of the four main businesses grew by only 1%. The principal factors affecting the trend in net sales were a fall in fertilizer prices for Kemira Agro and a decline in exports outside Europe as well as a slowdown in Tikkurila's sales in Russia in the latter months of the year. About 79% of consolidated net sales came from outside Finland.

The table on page 12 shows the distribution of the Group's net sales by business area.

KEMIRA CHEMICALS

The Group's strong commitment to developing strategic growth areas showed up clearly in Kemira Chemicals' net sales, which increased by 8% to FIM 3,744 million (3,461 million in 1997). All three strategic business units – Pulp & Paper Chemicals, Kemwater and Industrial Chemicals – grew. Kemira Fine Chemicals also reported further growth. Kemira Chemicals posted operating income of FIM 447 million (448 million in 1997), or 12% (13%) of net sales. Operating income in the last four months of the year was FIM 118 million, as against FIM 135 million in the previous four-month period and the FIM 163 million figure for the last third of 1997. Operating income for the September-December period included FIM 10 million of non-recurring expenses connected with increasing the efficiency of operations in Sweden. In addition, a change in the actuarial assumptions for calculating the liability of Finnish supplementary pension funds resulted in a one-off supplementary pension fund contribution of FIM 23 million. Of this sum, FIM 8 million was booked to the September-December period.

Sales by the Pulp & Paper Chemicals unit were up 9%. During the last months of the year, growth nevertheless slowed down in step with the lower production volumes in the pulp and paper industry, which is a major customer sector. The Pulp & Paper Chemicals unit furthermore expanded its operations to new market areas.

There was increased demand for hydrogen peroxide and the price level rose substantially on the previous year. The other products of the Pulp & Paper Chemicals unit enjoyed good success and the unit was able to improve its operating income on the previous year.

To strengthen its position in the growing hydrogen peroxide market in Asia, Kemira Chemicals purchased the hydrogen peroxide business of Hanwha Chemical Corporation in South Korea in August, thus acquiring a production plant with a capacity of approximately 34,000 t/a. The new plant's cooperation with Kemira-Ube Ltd, the joint venture that is already operating in Japan, will offer possibilities for production and logistics synergy. The acquisition will further improve the company's ability to serve its customers in different parts of the world.

Towards the end of the year a 41,000 tonne hydrogen peroxide plant in Ontario, Canada, was purchased from DuPont. This established an important bridgehead in the North American market, opening up cooperation with Kemira Pigments in serving the same clientele. The acquisitions are part of the Group's growth strategy which singles out chemicals for the pulp and paper industry as one of the key growth areas.

Following these acquisitions, Kemira is the world's fifth largest producer of hydrogen peroxide, with operations in all the main market areas: Europe, North America and Asia.

The Kemwater business unit continued its expansion into new areas of the globe both through acquisitions and by establishing new companies. Its net sales were up 15%, though operating income fell below last year's figure. Strong inputs into development increased fixed operating costs, but did not yet show up in the form of corresponding income. Kemwater is another of Kemira Chemicals' units that is a strategic growth area.

Kemwater established a presence in

Austria by acquiring the aluminium sulphate business of Krems Chemie, a local producer. In Germany, Kemwater purchased the ferrichloride production of Solvay S.A. and in the Czech Republic it acquired Kemwater ProChemie s.r.o., a manufacturer of aluminium sulphate. Two new joint ventures were set up outside Europe: Kemwater Diper A.S. in Turkey and Kemwater de México S.A. in Mexico, in both of which Kemira has a 51% stake. The companies will start the manufacture of water treatment chemicals for the purification of drinking and waste water. In its home area, Kemwater Brazil will build a second plant that produces water treatment chemicals. The plant is scheduled to come on stream in the first half of the year 2000.

Sales by the Industrial Chemicals unit increased by 9%. The market situation for phosphoric acid has remained stable. There was tough competition within value added products made from phosphoric acid, particularly detergent phosphates. Kemira Chemicals increased its market share within feed phosphates in Europe significantly when the company purchased the feed phosphate business of BASF. The market for calcium chloride was fairly weak owing to unfavourable weather. In future the outlook is nevertheless likely to be better thanks to reduced production capacity in the market. A new line for manufacturing granulated calcium chloride will open up new market opportunities.

Kemira Kemi AB, Kemira Chemicals' subsidiary in Sweden, has launched a programme to boost profitability and to improve its competitiveness by making annual cost savings of about FIM 30 million.

Kemira Fine Chemicals increased both its net sales and operating income. Operations have been expanded through cooperation with life sciences companies, and the unit has rapidly achieved a solid position as a knowledgeable custom manufacturer of demanding fine chemicals.

KEMIRA PIGMENTS

Kemira Pigments registered a net sales increase of 3% to FIM 2,514 million. Selling prices of titanium dioxide pigments were on average 17% higher than they were a year earlier. In September-December, selling prices as measured in local currencies were on average at the same level as they were in May-August and 13% higher than prices in the last four months of 1997. On a full-year basis, sales volumes fell 12% short of the previous year's volumes owing to low opening stocks, production disturbances and a weakening in the market situation towards the end of the year. Sales volumes in September-December were 9% lower than in May-August and 17% lower than in September-December of the previous year because customers wound down their own stocks of raw materials.

Kemira Pigments reported operating income of FIM 132 million (a loss of 35 million in 1997), which represented 5% of net sales. Operating profit in the September-December period was FIM 39 million, as against FIM 48 million in May-August and FIM 30 million in the last four months of the previous year. A change in actuarial assumptions in the Finnish pension regulations resulted in a non-recurring charge of about FIM 18 million to account for a contribution to the supplementary pension fund in 1998. Of this amount, FIM 6 million was booked to the September-December period.

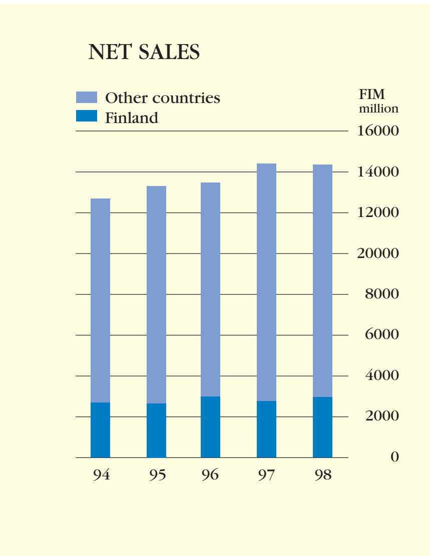
The strong growth in demand that started in 1997 slacked off during 1998. With the exception of grades used in paper manufacture, demand in North America was good, but in Europe and Latin America the markets weakened in the last months of the year. Demand in Asia was weak throughout the year. During 1998, the titanium dioxide industry further consolidated when two of the six big European producers were absorbed by acquirers. The largest acquisition fell through, however, when DuPont and ICI cancelled their agreement regarding Tioxide after they failed to obtain approval for the terms and conditions of the deal from the United States competition authorities.

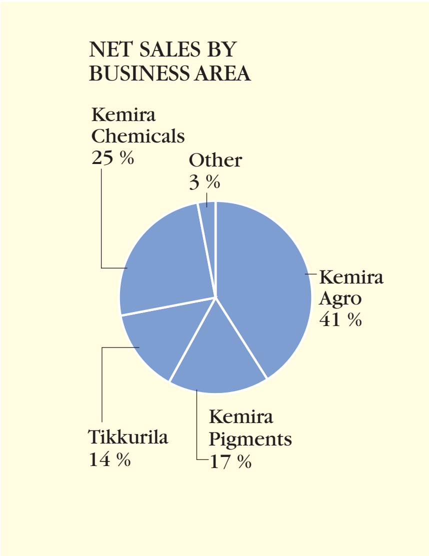
The debottlenecking project at the Pori plant is expected to be completed according to plan by the end of 1999, bringing the production capacity of Kemira Pigments up to 321,000 t/a.

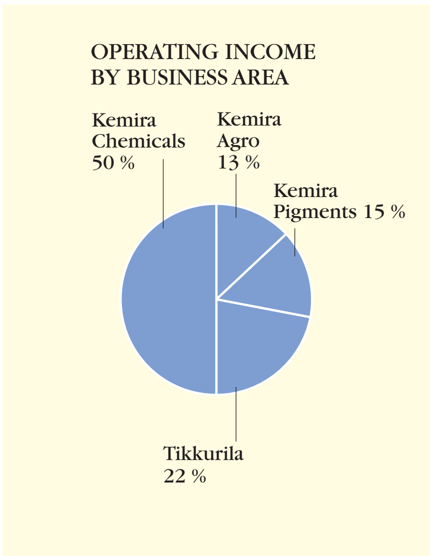
By carrying out new capital expenditures, Kemira Pigments is expanding its capacity for manufacturing special titanium dioxide grades in Pori, thus strengthening its position in these fast-growing product areas. In Rotterdam, the Netherlands, a third chlorinator is being built at the front end of the plant's process line with the aim of improving the unit's on-line time, lowering production costs and accommodating a wider use of alternative raw materials.

KEMIRA AGRO

Kemira Agro's net sales were down 4% and totalled FIM 6,126 million. Of the business units, the net sales of Agricul-







ture, the crop fertilizer unit, fell by 4%, whereas Horticulture, which produces nutrients for horticultural and special cultivation purposes, reported a 20% increase in net sales. Net sales of the Process Chemicals unit were down 1 per cent. Sales volumes of plant nutrients produced by Kemira Agro were 2% lower than in 1997. Sales volumes in Western Europe were up slightly on the previous year, but exports outside Europe declined. Production was also lower than in the previous year, partly because of shutdowns for plant investments and partly due to technical disturbances.

In the continental European market, prices of nitrogen fertilizers were on avarage 10% lower than they were a year ago and about 15% lower in the UK due to increased pressure from imports and tougher competition from local producers. By contrast, prices of NPK fertilizers were more stable in continental Europe, though in the UK and in overseas exports they fell by about 10%. About 2/3 of Kemira Agro's sales consists of NPK fertilizers. Downward pressure on prices in the world's nitrogen fertilizer markets has been caused above all by increased supply and China's continuing absence as a buyer of nitrogen products.

Because of the fall in prices and sales volumes, operating income dropped significantly and was FIM 111 million, or 2% of net sales. In the last four months of the year, Kemira Agro sustained an operating loss of FIM 115 million, as against earnings of FIM 80 million a year earlier. The operating income figure for September-December includes FIM 29 million of expenses booked on write-downs of stocks, the restructuring of operations in Denmark and extra depreciation on fixed assets.

Kemira Agro's capital expenditures to increase the efficiency of production at the Uusikaupunki plant and to expand the range of fertilizers was completed according to plan. In Fredericia, Denmark, Kemira Agro modernized the reactor system at the fertilizer plant and upgraded the potassium nitrate plant with a view to improving the cost structure and product quality.

Kemira-Lifosa, the joint venture established in Lithuania, began the production of PK fertilizers. The NPK projects in South-East Asia progressed according to plans and the plants are expected to go into operation in Malaysia in mid-1999 and in China during 2000. Feasibility studies for a potassium nitrate plant in Jordan are continuing.

At the beginning of 1999, Kemira Agro launched a development programme aiming at achieving a FIM 200 million improvement in earnings, beginning in 2001.

TIKKURILA

Tikkurila's net sales were up 3% on the previous year and were FIM 2,143 million. Sales of decorative paints in Finland were at the level of a year earlier, but the economic crisis in Russia meant that sales volumes to Russia decreased substantially. The paints business in the Baltic countries showed further growth. Worldwide sales of colour processing systems expanded further, though at a slower rate than a year ago. Net sales of the Tikkurila Paints and Tikkurila Coatings units declined by 6% and 1% respectively. Net sales of Tikkurila CPS rose by 8%.

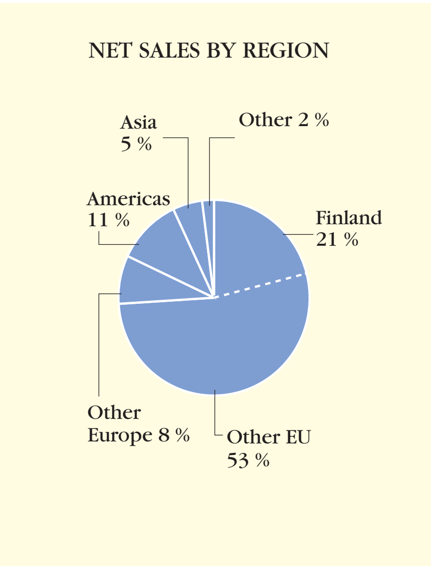
Operating income was FIM 194 million (287 million in 1997), or 9% of net sales. The operating result for the last four months of the year was a loss of FIM 5 million, which compares with operating income of FIM 119 million in May-August and FIM 58 million in the last four months of 1997.

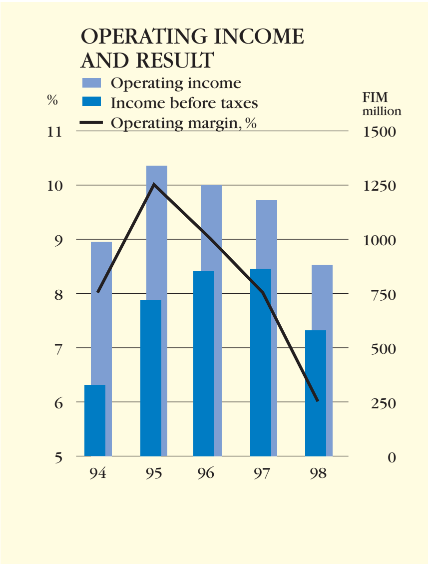
Operating income was reduced by significant additional spending on marketing, which resulted in higher fixed costs and did not yet generate income. Outlays of this kind included the launching of Tikkurila's new Monicolor Symphony tinting system on the Finnish market, the development of new marketing concepts in Europe and the development of production together with the sales and service network in Asia and the United States. The costs of these additional inputs as well as provisions booked for receivables in Russia totalled about FIM 50 million, half of which was charged to the September-December period.

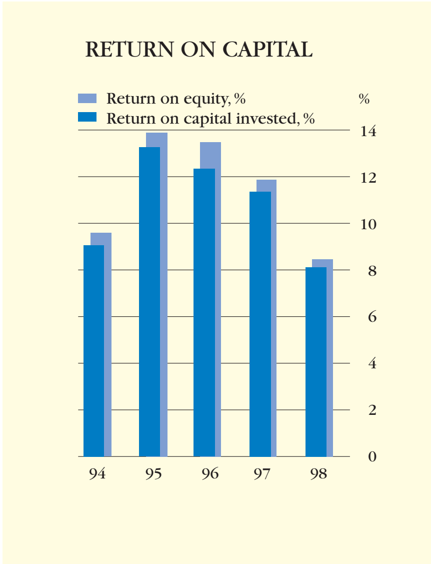
Tikkurila together with a Polish partner established the joint venture Tikkurila Baltcolor Sp. z o.o. in Szczecin, Poland. Tikkurila has a 60% stake in the company, which began producing paint in the autumn.

Colour processing systems are a growth area in line with the Group's strategy. To spur fast growth, Tikkurila set up a representative office in China and a subsidiary in Singapore. The subsidiary will market advanced colour processing systems, handle technical and colour marketing support for customers as well as aim for starting the manufacture of colorants towards the end of 1999.

Tikkurila and Swisslog of Switzerland established a company that is owned on a fifty-fifty basis and manufactures tinting machines. By way of this deal, the companies are seeking to







broaden their offerings of materials handling lines connected with tinting and also to develop a comprehensive international servicing network for tinting machine customers. The company is named Corob and it took over the founding shareholders' tinting machine operations. A further objective of the arrangement is to be able to tap the special expertise of both parties. Plant extension and automation works for the unit that manufactures tinting machines got started in Modena, Italy. When completed, the investments will boost production capacity and improve the unit's price competitiveness in the tinting machine markets. The manufacture of tinting machines was started in Mumbai, India.

In Sittard, the Netherlands, an extension was completed to the plant that manufactures colorants.

At the beginning of the year under review, Tikkurila sold its holding in McWhorter Technologies AB, which produces resins for the paint industry.

OTHERS

Kemira Metalkat's net sales increased by 15% and were FIM 178 million. Operating income was FIM 10 million, as against an operating loss of FIM 4 million a year earlier. Kemira Safety reported a 20% increase in net sales, which rose to FIM 85 million. Operating income was FIM 7 million (5 million in 1997).

GROUP FINANCIAL PERFORMANCE

The Group's operating income was FIM 881 million (1,179 million in 1997), which was 6% of net sales. Net income before taxes and minority interests was FIM 579 million (864 million in 1997). Net financial expenses declined to FIM 302 million (315 million). Income after taxes was FIM 468 million (619 million). The effective tax rate fell from 28% to 20%. Taxes in the income statement and the effective tax rate are reduced by a non-recurring FIM 83 million imputed taxes item which was booked to bring deferred taxes into line with changed IAS rules. Return on equity was 8.3% (11.9%).

CAPITAL EXPENDITURE

The Group's capital expenditures totalled FIM 1,519 million (1,257 million in 1997), or 11% of net sales. Capital expenditures were higher than the level of recent years owing to two major acquisitions: Kemira Chemicals' purchases of hydrogen peroxide businesses in Korea and North America. Disposals of fixed assets amounted to FIM 84 million (364 million in 1997), leaving FIM 1,435 million, or 10% of net sales, as net capital spending. Group capital spending on environmental protection amounted to FIM 89 million. All major capital expenditure projects have been discussed in the business reviews.

The Group's spending on research and development was about FIM 290 million, or some 2% of net sales. The figure does not include capital expenditures.

ENVIRONMENTAL PROTECTION AND MANAGEMENT OF RI SKS

The Kemira Group considers environmental protection to be an important and integral part of its operations. The verified Environmental Report is part of this Annual Report (pages 55-61).

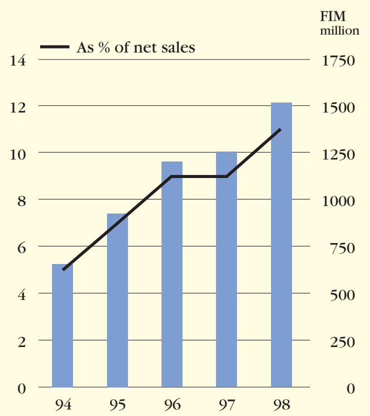
During the past year the Group directed particular attention towards ensuring the safety of its activities and securing disturbance-free operations at its plants. To accomplish this, it also went through its various functions with the risk management units of the Group's insurers.

Preparations for achieving a Year 2000 capability without problems are in progress at all Group units. The studies cover the process automation systems, embedded systems and the main information systems: sales, order and delivery processing, production control systems as well as applications connected with finance, treasury functions and personnel administration.

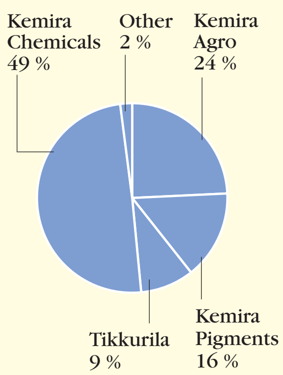
In parallel with the programme to eliminate the potential snags involved in moving into the 2000 millennium, systems are being harmonized and modernized within the Group. The process control systems at all production plants will be tested jointly with suppliers of the systems and equipment. As part of the tests, equipment suppliers are assisting Kemira personnel in drawing up plans to update the software programs. The updates and renewal work will be carried out in good time before the turn of the year 2000, mostly by the end of August 1999.

On the basis of studies and preparatory works that have been carried out, the Board of Directors believes that the Group will be able to continue its operations and to provide its customers with services and products without interruption next year, too. The Group will spend an estimated FIM 80 million on the studies and modifications necessitated by measures to prepare for the year 2000. Of this amount, FIM 20 mil-

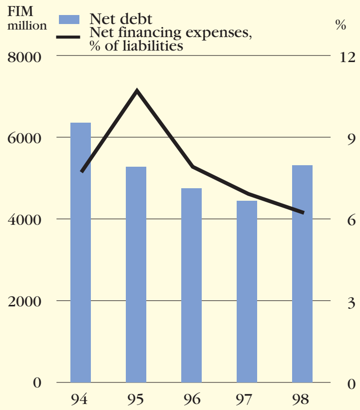
CAPITAL EXPENDITURE



CAPITAL EXPENDITURE
BY BUSINESS AREA



NET DEBT AND
FINANCING EXPENSES



lion was spent by the end of last year. The figures do not include system upgrading and renewal costs that would have been made anyway in the course of normal development of operations. The figures nevertheless include the costs of new system projects whose scheduling has been affected by the eventuality of Year 2000 problems.

FINANCING

The Group's financial position remained stable in 1998. Interest-bearing net debt at the end of 1998 increased to FIM 5,306 million (4,430 million at the end of 1997). A weakening of the US dollar, British pound and Swedish krona lowered the consolidation values of loans taken out in those currencies, thus reducing net debt. Cash flow before financing was FIM 706 million negative (+637 million in 1997). The Group's equity ratio remained at the previous year's level and was 39% at year end. Gearing (net debt divided by net debt plus equity) was 48%. The amount of liquid funds was intentionally reduced during the year. At year end liquid funds amounted to FIM 568 million and unused committed credit lines totalled approximately FIM 1,700 million.

The Group's long-term loans increased by FIM 357 million during the year. In February the Group and one of its principal banks signed a USD 50 million bilateral loan agreement that was used to refinance a syndicated loan that was repaid at the same time. The loan period is seven years. In November a FIM two billion bond programme was established as part of the Group's financing programme, and Kemira floated two FIM 750 million issues of serial bonds, which are listed on the Helsinki Stock Exchange. Tender offers totalling FIM 367 million were approved in the auction of the serial bonds.

Net financing expenses were FIM 302 million (FIM 315 million in 1997). The fall in costs resulting from lower interest rates was partially countered by the growth in net debt and the foreign exchange loss due to the appreciation of the Japanese yen, which was used in financing an acquisition in Korea. Fixed-interest loans accounted for about 39% of the Group's total interest-bearing long-term loans (excluding pension loans, which are not regarded as fixed-rate) at the end of the year. Foreign exchange losses totalled FIM 32 million, as against foreign exchange gains of FIM 3 million a year earlier. Interest cover (operating income plus depreciation divided by net financial expenses) was 6.

PARENT COMPANY'S FINANCIAL PERFORMANCE

The parent company's net sales come only from the sale of energy in Finland, both within and outside the Group. The parent company had net sales of FIM 188 million (197 million in 1997), and it generated an operating loss of FIM 40 million (1 million negative in 1997). The parent company bears the cost of Group management and administration.

The parent company's net financial income amounted to FIM 48 million (167 million in 1997). Income before taxes and appropriations was FIM 640 million (FIM 492 million). The parent company's capital expenditure amounted to FIM 70 million (including amounts allocated for increasing the equity of subsidiaries).

PERSONNEL

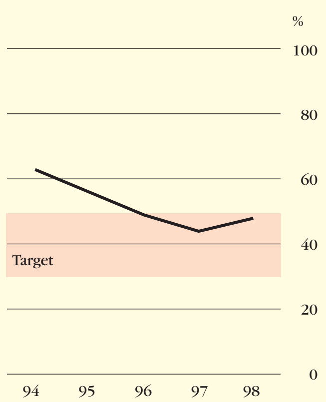
The Group employed an average of 10,785 people, or 393 more than in the previous year. Of the total personnel, an average of 5,630 people were employed by Group companies outside Finland.

The parent company had an average payroll of 133 employees, 3 fewer than a year ago.

During the year under review the following persons served on the Board of Directors of Kemira Oyj: Heimo Karinen (Chairman), Timo Mattila (Vice Chairman), Juhani Kari, Esa Tirkkonen, Leif Ekström and Sten-Olof Hansén, the last two as non-executive directors. At its meeting on 17 December 1998, the Supervisory Board elected the same six persons to seats on the Board of Directors for the period of office beginning on 1 January 1999. CEO Heimo Karinen, who is presently chairman of the Board of Directors, has indicated his intention to retire at the end of 1999 when he reaches the age of 60.

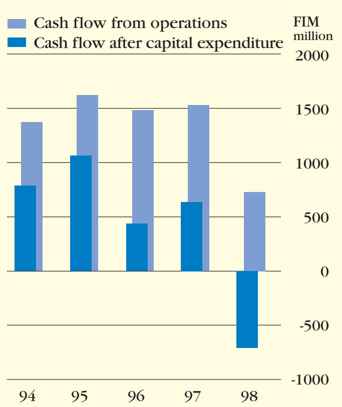
A large part of the Group's personnel are covered by various bonus systems that vary from country to country. The management of the core businesses have an annual bonus system that is based on economic value added (EVA). The Group furthermore has a share option system for its top management. The previous system of bonds with equity warrants was supplemented with a new share option system which was confirmed last spring and sets a challenging target for the company's earnings trend, whilst also stipulating that the share price must perform better

GEARING

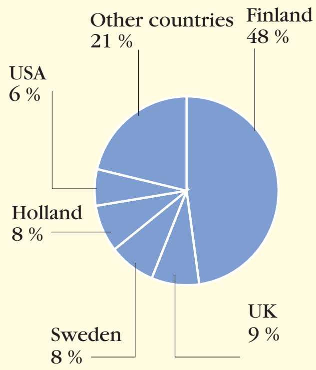


Net debt divided by net debt plus equity.

CASH FLOW



PERSONNEL



The average number of personnel in 1998 was 10, 785.

than a specified comparison group. The share option system is discussed in greater detail on page 13.

In accordance with a wish expressed at the Annual General Meeting in April 1998, the Board of Directors has explored the possibilities of creating a share-tied incentive system covering the entire personnel. After studying the matter, it has been established that a share-tied incentive system cannot yet be created on a cost-effective basis in view of the varying taxation systems in different countries as well as the administrative and foreign exchange costs connected with share ownership and any dividends that may be distributed. For this reason the Board of Directors has decided to propose to the Annual General Meeting that it be granted an authorization to buy back a maximum of 2% of the company's shares to be used for the payment of profit-related bonuses to the personnel funds in the event that the funds choose this mode of payment. A detailed proposal prepared by the Board of Directors is given as a separate annex to the AGM documents. Some two thirds of the personnel in Finland are presently covered by the personnel funds.

OWNERSHIP

The Finnish government's holding in Kemira was 53.4% as at 31 December 1998. The proportion of institutional investors outside Finland was 20.6%, whereas Finnish institutional investors and mutual funds held 20.5% of the shares. Private investors' holdings amounted to 5.5% of the shares outstanding.

CHANGES IN THE GROUP STRUCTURE

Various companies and participations were established, acquired or divested during the year as discussed in the review of the business areas above. The changes in the Group structure are presented in more detail on page 35.

OUTLOOK FOR THE FUTURE

The business cycle in the pulp and paper industry reflects a mood of dejection, but on the other hand, it is believed that the Year 2000 will step up the demand for a number of grades of printing paper in the second half of this year. Investments made in developing the pulp and paper chemicals business are expected to bring new growth. It is believed that the water treatment chemicals business will continue to expand into new areas of the world, but increased competition may lead to thinner margins in some markets. Demand for phosphoric acid is expected to remain stable. It is believed that Kemira Chemicals' operating income will remain at the present level or grow in 1999.

The demand and prices of titanium dioxide pigments are expected to be roughly at last year's level. There is market uncertainty over the short term due to speculation about the level of economic growth and the cancellation of the Tioxide deal between DuPont and ICI. The markets will have to adjust to a new situation, though this does offer an opportunity for other industry consolidation arrangements. Kemira Pigments will continue its actions to improve further its cost structure and its plants' capacity utilization rate at all its units. It is believed that the operating income of Kemira Pigments will remain at last year's level.

The prices of single nutrient nitrogen fertilizers fell markedly during last year, indicating that the average prices in the current year will fall below those of last year, even if prices remain at their present level. Signs of an improvement in the situation in the form of rationalization within the industry or growth in Russian and Chinese agricultural demand are not immediately on the horizon. The European Union has decided to raise the 1999 set-aside acreage obligation of farmers in its area to 10% during the growing season, as a consequence of which the use of nutrients in the EU area is expected to fall by 2-3%. In continental Europe, costs will be lowered by the fall in the price of gas due to lower oil prices. The effect of the programme to develop operations and inputs into new market areas will still be limited during the current year and it is therefore believed that Kemira Agro will again report weak operating income.

The growth in sales of Tikkurila's colour processing systems and colorants is expected to continue, particularly in Asia, but the outlook is also good in North America and continental Europe. Provided that economic growth continues as forecast, demand for paints is expected to grow both in already established markets and in those that are still developing. The uncertainty in Russia will continue on through the present year, which is a negative factor for the sale of decorative paints. It is believed that Tikkurila's operating income will remain at last year's level or improve.

The outlook for the Kemira Group in 1999 is tinged by sizeable factors of uncertainty deriving from the trend in world economic growth in different regions. Capital expenditures, excluding major acquisitions, are estimated to remain at roughly the level of the past year with the aim of securing continued growth. Kemira is currently carrying out a number of important development programmes to improve efficiency and strengthen competitiveness further. The three main businesses are expected to generate sufficient operating income to help offset the anticipated lower level of operating income of Kemira Agro. Net financial expenses are estimated to remain largely unchanged and consolidated net income is expected to remain at last year's level.

Kemira will publish its financial reports in euros starting from the January - April interim report.

EARNINGS AND PERSONNEL BY BUSINESS AREA IN 1998

FIM million	Net sales	Operating income	Income before extraordinary items	Personnel (average)
Kemira Chemicals	3,744	447	330	3,114
Kemira Pigments	2,514	132	22	1,794
Kemira Agro	6,126	111	13	3,071
Tikkurila	2,143	194	167	2,214
Others*	502	–3	47	592
Intra-Group sales	–684	–	–	–
Group, total	14,345	881	579	10,785

* Includes other businesses, Group administration and eliminations from operating income and income before extraordinary items.

All forecasts and estimates mentioned in this report are based on management's current judgement of the economic environment, and the actual results may differ significantly.

SHARES AND SHAREHOLDERS

SHARES AND VOTING RIGHTS

The nominal value of the Kemira Oyj share is FIM 10 and each share confers one vote at meetings of shareholders. The number of shares is 128,800,000. According to the Articles of Association, the company's share capital can be in the range of from FIM 850 million to 3,400 million. The share capital can be changed within these limits without amending the Articles of Association. The share capital of Kemira Oyj at present is FIM 1,288 million. Kemira Oyj shares are registered within the Book Entry system.

DIVIDEND POLICY

Kemira aims to distribute a dividend which in the long term is competitive with that of major Finnish companies and with foreign chemicals groups, nevertheless taking into account the company's result and capital requirement at any given time. The company's Board of Directors proposes to the Annual General Meeting that a dividend of FIM 1.70 per share, or FIM 219 million, be paid for the 1998 financial year. This corresponds to a dividend payout of 47% of the net income for the year. Taking into account the Finnish tax base, this amounts to a taxable dividend of FIM 2.36. The record date for the dividend payout will be 12 April 1999 and the dividend will be paid on 20 April 1999.

INCREASE IN SHARE CAPITAL AND PURCHASE OF OWN SHARES

The Board of Directors of Kemira Oyj does not at present have authorizations to increase the company's share capital or to purchase the company's own shares (treasury shares).

LISTING AND SHARE TRADING

Kemira Oyj's shares have been listed on the Helsinki Exchange since 10 November 1994. In addition to Helsinki, trading in the shares is done through the SEAQ International trading system operated by the London Stock Exchange. Kemira is also part of the PORTAL system in the United States. In the United States, Kemira's shares were issued under Regulation 144A, whereby only qualified institutional buyers permitted under this regulation are allowed to buy and sell the shares. Kemira's shares can also be traded in the form of ADS shares. One ADS share corresponds to two Kemira shares.

PRICE TREND AND TRADING VOLUME

The price of Kemira's share weakened by 28% on the Helsinki Exchange during 1998, compared with a rise in the HEX index of 65%. The highest price of the share was FIM 63 and the lowest FIM 31. The price at the end of the year was FIM 37.1. The 1998 taxation value of the share is FIM 26. Turnover of the share on the Helsinki Exchange totalled 30,277,468 shares and the turnover in Finnish markka was FIM 1,449 million. The market capitalization at the end of 1998 was FIM 4.8 billion.

MANAGEMENT STOCK OPTION AND SHARE OWNERSHIP

The Annual General Meeting of Kemira Oyj resolved, on 26 April 1995, to float an issue of bonds with warrants targeted at the management of the Kemira Group. The amount of the subscribed issue is FIM 600,000. Each member of the Board of Directors who was employed by Kemira Oyj was entitled to subscribe a maximum of FIM 80,000 of the options. The maturity of the issue is five years beginning on 2 May 1995, the interest is 6% and the issuing price was 100%. The issue of bonds with warrants gives management the right to subscribe a maximum of 1,200,000 shares in the company between 1 December 1998 and 31 January 2002 at a price of FIM 40 per share. These subscriptions can increase the company's share capital by a maximum of FIM 12 million.

In accordance with the terms and conditions of the issue of bonds with warrants, individuals who have subscribed the issue can subscribe half of the shares that can be subscribed with warrants or sell half of the warrants they own after 1 December 1998. The remainder of the warrants will be released from the restriction on transfer on 1 December 2000. By 31 January 1999 no one had sold their warrants or converted them into shares.

The Annual General Meeting of Kemira Oyj resolved on 22 April 1998, to offer stock options for subscription by the company's management. The total amount of the stock options is 2,850,000 options and they entitle their holders to subscribe a total of 2,850,000 Kemira Oyj shares. The chairman of the Board of Directors of Kemira Oyj was offered 170,000 options and the other executive directors of Kemira Oyj were offered 120,000 options each. The stock option programme covers a total of about 70 persons.

The share subscription period will commence on 1 May 2001 and end on 31 May 2004. It is a further condition for commencement of the subscription that the consolidated income of Kemira Oyj after financial items and before taxes and extraordinary items for the financial years 1998-2000 is a minimum of FIM 21 per share or 3.53 euros. Similarly, it is a further condition that the price of Kemira Oyj's share has developed better than that of a peer group.

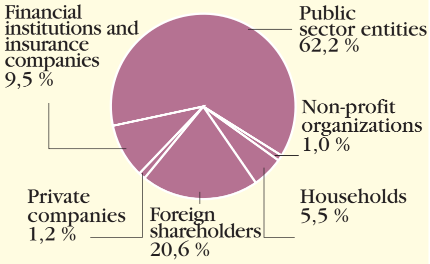
The subscription price is the average price of the company's share on the Helsinki Exchange, weighted for trading in the year 2000, and lowered by double the percentage figure by which an index calculated on the share trend of Kemira Oyj's share exceeds the arithmetic average index calculated in a similar manner on the share trend in the shares of a peer group. The subscription price of the share will furthermore be lowered by the amount of dividends distributed from 1 June 1998 to 31 May 2001 to the extent that the total amount exceeds six markka per share, and the dividends to be distributed after 1 June 2001 will be subtracted in their enterity. The subscribtion price is nevertheless a minimum of FIM 61.90 less the amount of dividends distributed after 1 June 1998.

The members of the company's Supervisory Board and Board of Directors owned 25,546 shares of Kemira Oyj at the end of the year. This is 0.02% of the company's shares and voting rights. The issue of bonds with warrants entitling holders to Kemira Oyj shares has been subscribed by the members of the Kemira Oyj Board of Directors in the amount of FIM 260,000, which corresponds to 520,000 warrants. The members of the Board of Directors of Kemira Oyj have subscribed 530,000 stock options. These warrants and stock options entitle their holders to subscribe a total of 1,050,000 shares. The members of the Board of Directors and the Supervisory Board hold 0.84% of the company's shares and voting rights, including those conferred through the issue of bonds with warrants and the stock options.

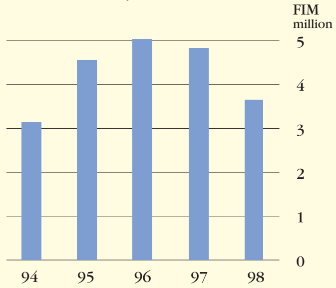
Distribution of ownership 31 Dec 1998

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1 - 50	1,119	8.19	45,153	0.04
51 - 100	1,129	8.27	87,372	0.07
101 - 1,000	9,462	69.27	3,885,897	3.02
1,001 - 5,000	1,759	12.88	3,119,250	2.42
5,001 - 10,000	66	0.48	545,136	0.42
10,001 - 100,000	90	0.66	2,596,743	2.02
100,001 - 500,000	18	0.13	4,459,400	3.46
500,001 - 1,000,000	8	0.06	6,194,613	4.81
Over 1,000,000	8	0.06	81,445,117	63.23
Total	13,659	100.00	102,378,681	79.49
Nominee-registered shares			26,421,319	20.51
Grand total			128,800,000	100.00

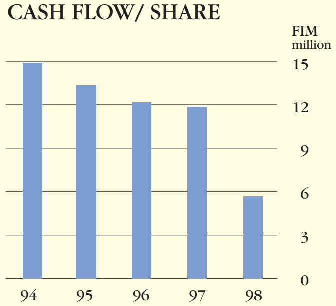
DISTRIBUTION OF SHAREHOLDERS 31 DEC 1998



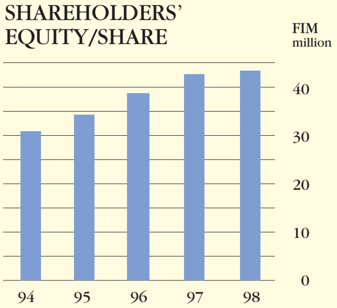
EARNINGS / SHARE



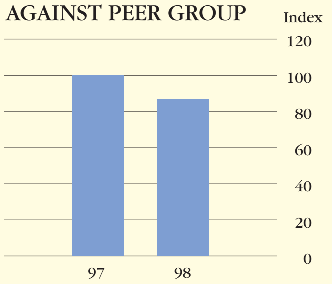
CASH FLOW/ SHARE



SHAREHOLDERS' EQUITY/SHARE



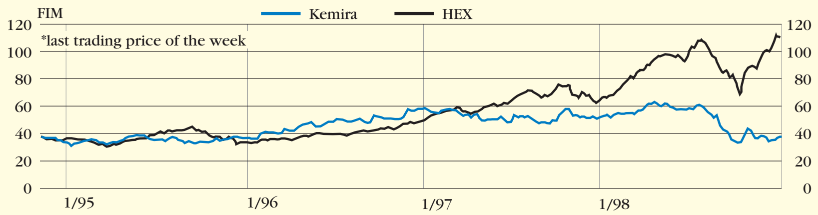
SHARE PRICE DEVELOPMENT AGAINST PEER GROUP



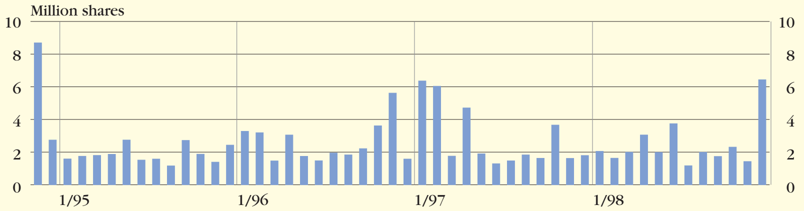
LARGEST SHAREHOLDERS 31 DEC 1998

Shareholder	Number of shares	% of shares and votes
1. Finnish State	68,753,920	53.38
2. Sampo Group	4,087,000	3.17
(Sampo Insurance Company Ltd)	(850,000)	
(Industrial Insurance Company Ltd)	(1,480,000)	
(Sampo Enterprise Insurance Company Ltd)	(450,000)	
(Otso Loss of Profits Insurance Company Ltd)	(425,000)	
(Sampo Life Insurance Company Ltd)	(882,000)	
3. Ilmarinen Mutual Pension Insurance Company	3,189,500	2.48
4. Pohjola Group	2,920,000	2.27
(Pohjola Non-Life Insurance Company Ltd)	(1,780,000)	
(Pohjola Life Insurance Company Ltd)	(1,140,000)	
5. Varma-Sampo Mutual Pension Insurance Company	2,349,697	1.82
6. The Local Government Pensions Institution	1,492,000	1.16
7. Suomi Mutual Life Assurance Company	1,260,000	0.98
8. Tapiola Mutual Pension Insurance Company	992,400	0.77
9. Mutual Insurance Company Pension-Fennia	837,003	0.65
10. Tapiola General Mutual Insurance Company	713,500	0.55
11. Kaleva Mutual Insurance Company	700,000	0.54
12. Nova Life Insurance Company Ltd	642,550	0.50
13. Pension Foundation Neliapila s.r.	577,160	0.45
14. Tapiola Mutual Life Assurance Company	455,500	0.35
15. Norvestia Oyj	400,000	0.31
16. The Church Central Fund	278,500	0.22
17. Neste Pension Foundation s.r.	270,000	0.21
18. Finnish Broadcasting Company Pension Foundation s.r.	245,500	0.19
19. Tapiola Corporate Life Insurance Company	226,000	0.18
20. OKOBANK Group Pension Foundation s.r.	209,500	0.16
Nominee-registered shares	26,421,319	20.51
Other, total	11,778,951	9.15
Grand total	128,800,000	100.00

SHARE PRICE* (FIM, until 31 Dec 1998)

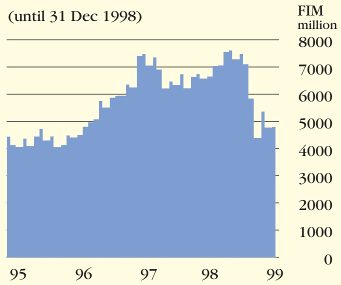


SHARE TURNOVER IN HELSINKI EXCHANGES (until 31 Dec 1998)



MARKET CAPITALIZATION

(until 31 Dec 1998)



DEFINITIONS OF KEY RATIOS

PER-SHARE DATA

Earnings per share (EPS)

$$\frac{\text{Income before extraordinary items +/– minority interest – taxes}}{\text{Adjusted average number of shares}}$$

Net income per share

$$\frac{\text{Net income}}{\text{Adjusted average number of shares}}$$

Cash flow from operations

Cash flow from operations, after change in net working capital and before capital investments

Cash flow from operations per share

$$\frac{\text{Cash flow from operations}}{\text{Adjusted average number of shares}}$$

Dividend per share

$$\frac{\text{Dividends paid}}{\text{Number of shares at end of year}}$$

Dividend payout ratio

$$\frac{\text{Dividend per share x 100}}{\text{Earnings per share}}$$

Dividend yield

$$\frac{\text{Dividend per share x 100}}{\text{Share price at end of year}}$$

Equity per share

$$\frac{\text{Equity at end of year}}{\text{Number of shares at end of year}}$$

Share price, year average

$$\frac{\text{Shares traded (FIM or EUR)}}{\text{Shares traded (volume)}}$$

Share price, end of year

Weighted average share price of the last trading day

Price per earnings per share (P / E)

$$\frac{\text{Share price at end of year}}{\text{Earnings per share}}$$

Price per equity per share

$$\frac{\text{Share price at end of year}}{\text{Equity per share}}$$

Price per cash flow per share

$$\frac{\text{Share price at end of year}}{\text{Cash flow from operations per share}}$$

Share turnover

Number of shares traded during the year and the proportional share of number of shares traded to weighted average number of shares during the year

FINANCIAL RATIOS

Net liabilities

Interest-bearing liabilities – cash and bank – securities

Equity ratio, %

$$\frac{\text{Shareholders' equity + minority interest x 100}}{\text{Total assets – advance payments received}}$$

Gearing, %

$$\frac{\text{Net liabilities x 100}}{\text{Shareholders' equity + minority interest + net liabilities}}$$

Interest cover

$$\frac{\text{Operating income + depreciation}}{\text{Net financial expenses}}$$

Return on capital invested, % (ROI)

$$\frac{\text{Income before extraordinary items + interest expenses + other financing expenses x 100}}{\text{Total assets – interest-free liabilities (average)}}$$

Return on equity, % (ROE)

$$\frac{\text{Income before extraordinary items – taxes +/– tax effect of extraordinary items x 100}}{\text{Shareholders' equity + minority interests (average)}}$$

KEY FIGURES IN MARKKA

PER-SHARE DATA

	1998	1997	1996	1995	1994
Per-share data [1]					
Earnings per share, FIM	**3.6**	4.8	5.1	4.6	3.1
Net income per share, FIM	**3.6**	4.8	5.1	4.6	2.5
Cash flow from operations per share, FIM	**5.7**	11.9	12.2	13.4	14.9
Dividend per share, FIM [2]	**1.7**	1.7	1.6	1.5	0.4
Dividend payout ratio, % [2]	**47.2**	35.3	31.4	32.8	12.9
Dividend yield [2]	**4.6**	3.3	2.7	4.1	1.2
Equity per share, FIM	**43.2**	42.6	38.8	34.3	30.8
Price per earnings per share (P/E) ratio	**10.3**	10.6	11.4	8.0	11.0
Price per equity per share	**0.9**	1.2	1.5	1.1	1.1
Price per cash flow per share	**6.5**	4.3	4.8	2.7	2.3
Dividend paid, FIM million [2]	**219.0**	219.0	206.1	181.2	48.3
Share price and turnover					
Share price, year high, FIM	**63.0**	61.5	60.0	39.9	38.5
Share price, year low, FIM	**31.0**	45.5	36.0	31.5	33.0
Share price, year average, FIM	**47.9**	53.6	47.9	35.8	37.8
Share price, end of year, FIM	**37.1**	51.2	58.3	36.7	34.1
Number of shares traded (1000), Helsinki	**30,277**	33,241	33,276	22,480	11,432
% of number of shares	**24**	26	27	19	12
Market capitalization, end of year, FIM million	**4,778**	6,595	7,509	4,409	4,107
Increase in share capital [1]					
Average number of shares (1000)	**128,800**	128,800	122,090	120,800	91,877
Number of shares at end of year (1000)	**128,800**	128,800	128,800	120,800	120,800
Increases in number of shares (1000)	**–**	–	8,000	–	33,500
Share capital, FIM million	**1,288**	1,288	1,288	1,208	1,208
Increases in share capital, FIM million	**–**	–	80	–	335

[1] Adjusted for the 20-for-1 share split which took effect in 1994.

[2] The 1998 dividend is the Board of Directors' proposal to the Annual General Meeting.

FINANCIAL RATIOS

	1998	1997	1996	1995	1994
Income statement					
Net sales, FIM million	**14,345**	14,386	13,471	13,284	12,690
Foreign operations, FIM million	**11,390**	11,626	10,488	10,635	9,998
Sales in Finland, %	**21**	19	22	20	22
Exports from Finland, %	**19**	22	24	25	23
Sales generated outside Finland, %	**61**	59	54	55	55
Operating income, FIM million	**881**	1,179	1,248	1,337	988
% of net sales	**6**	8	9	10	8
Net financing income and expenses, FIM million	**302**	315	397	619	587
% of net sales	**2**	2	3	5	5
Interest cover	**6**	7	6	4	3
Income before extraordinary items, FIM million	**579**	864	851	718	402
% of net sales	**4**	6	6	5	3
Extraordinary income and expenses, FIM million	**–**	–	–	3	–74
Income before taxes and minority interests, FIM million	**579**	864	851	721	327
% of net sales	**4**	6	6	5	3
Net income, FIM million	**468**	619	617	552	228
Return on capital invested, %	**8**	11	12	13	9
Return on equity, %	**8**	12	14	14	10
Cash flow					
Cash flow from operations, FIM million	**729**	1,530	1,484	1,620	1,371
Sales of fixed assets, FIM million	**84**	364	156	371	73
Capital expenditure, FIM million	**1,519**	1,257	1,203	927	657
% of net sales	**11**	9	9	7	5
Cash flow after capital expenditure, FIM million	**–706**	637	437	1,064	787
Balance sheet					
Non-current assets, FIM million	**8,587**	8,348	8,119	7,803	8,212
Shareholders' equity, FIM million	**5,565**	5,489	4,997	4,146	3,722
Liabilities, FIM million	**8,942**	8,667	9,520	9,606	10,560
Total assets, FIM million	**14,586**	14,204	14,550	13,772	14,294
Net liabilities, FIM million	**5,306**	4,430	4,747	5,262	6,347
Equity ratio, %	**39**	39	35	30	26
Gearing, %	**48**	44	49	56	63
Personnel					
Personnel (average)	**10,785**	10,392	10,631	10,900	11,156
of whom in Finland	**5,155**	5,176	5,945	6,125	6,141
Exchange rates					
Key exchange rates (31 December)					
USD	**5.0960**	5.4207	4.6439	4.3586	4.7432
GBP	**8.4280**	8.9920	7.8690	6.7410	7.4090
NLG	**2.6981**	2.6861	2.6624	2.7185	2.7337
SEK	**0.6267**	0.6863	0.6748	0.6546	0.6358
DKK	**0.7982**	0.7948	0.7809	0.7862	0.7794
BEF	**0.1474**	0.1468	0.1449	0.1482	0.1490
EUR	**5.94573**	5.94573	5.94573	5.94573	5.94573

KEY FIGURES IN EURO

PER-SHARE DATA

	1998	1997	1996	1995	1994
Per-share data [1]					
Earnings per share, EUR	**0.61**	0.81	0.86	0.77	0.52
Net income per share, EUR	**0.61**	0.81	0.86	0.77	0.42
Cash flow from operations per share, EUR	**0.96**	2.00	2.05	2.25	2.51
Dividend per share, EUR [2]	**0.29**	0.29	0.27	0.25	0.07
Dividend payout ratio, % [2]	**47.2**	35.3	31.4	32.8	12.9
Dividend yield, % [2]	**4.6**	3.3	2.7	4.1	1.2
Equity per share, EUR	**7.27**	7.16	6.53	5.77	5.18
Price per earnings per share (P/E) ratio	**10.30**	10.60	11.43	8.00	11.00
Price per equity per share	**0.90**	1.20	1.50	1.07	1.10
Price per cash flow per share	**6.50**	4.30	4.78	2.74	2.30
Dividend paid, EUR million [2]	**36.8**	36.8	34.7	30.5	8.1
Share price and turnover					
Share price, year high, EUR	**10.60**	10.34	10.09	6.71	6.48
Share price, year low, EUR	**5.21**	7.65	6.05	5.30	5.55
Share price, year average, EUR	**8.06**	9.01	8.06	6.02	6.36
Share price, end of year, EUR	**6.24**	8.61	9.81	6.17	5.74
Number of shares traded (1000), Helsinki	**30,277**	33,241	33,276	22,480	11,432
% of number of shares	**24**	26	27	19	12
Market capitalization, end of year, EUR million	**803.6**	1,109.2	1,262.9	741.5	690.7
Increase in share capital [1]					
Average number of shares (1000)	**128,800**	128,800	122,090	120,800	91,877
Number of shares at end of year (1000)	**128,800**	128,800	128,800	120,800	120,800
Increases in number of shares (1000)	**–**	–	8,000	–	33,500
Share capital, EUR million	**216.6**	216.6	216.6	203.2	203.2
Increases in share capital, EUR million	**–**	–	13.5	–	56.3

1) Adjusted for the 20-for-1 share split which took effect in 1994.

2) The 1998 dividend is the Board of Directors' proposal to the Annual General Meeting.

FINANCIAL RATIOS

	1998	1997	1996	1995	1994
Income statement					
Net sales, EUR million	**2,413**	2,420	2,266	2,234	2,134
Foreign operations, EUR million	**1,916**	1,955	1,764	1,789	1,682
Sales in Finland, %	**21**	19	22	20	22
Exports from Finland, %	**19**	22	24	25	23
Sales generated outside Finland, %	**61**	59	54	55	55
Operating income, EUR million	**148**	198	210	225	166
% of net sales	**6**	8	9	10	8
Net financing income and expenses, EUR million	**51**	53	67	104	99
% of net sales	**2**	2	3	5	5
Interest cover	**6**	7	6	4	3
Income before extraordinary items, EUR million	**97**	145	143	121	68
% of net sales	**4**	6	6	5	3
Extraordinary income and expenses, EUR million	**–**	–	–	–	–12
Income before taxes and minority interests, EUR million	**97**	145	143	121	55
% of net sales	**4**	6	6	5	3
Net income, EUR million	**79**	104	104	93	38
Return on capital invested, %	**8**	11	12	13	9
Return on equity, %	**8**	12	14	14	10
Cash flow					
Cash flow from operations, EUR million	**123**	257	250	272	231
Sales of fixed assets, EUR million	**14**	61	26	62	12
Capital expenditure, EUR million	**255**	211	202	156	110
% of net sales	**11**	9	9	7	5
Cash flow after capital expenditure, EUR million	**–119**	107	73	179	132
Balance sheet					
Non-current assets, EUR million	**1,444**	1,404	1,366	1,312	1,381
Shareholders’ equity, EUR million	**936**	923	840	697	626
Liabilities, EUR million	**1,504**	1,458	1,601	1,616	1,776
Total assets, EUR million	**2,453**	2,389	2,447	2,316	2,404
Net liabilities, EUR million	**892**	745	798	885	1,067
Equity ratio, %	**39**	39	35	30	26
Gearing, %	**48**	44	49	56	63
Personnel					
Personnel (average)	**10,785**	10,392	10,631	10,900	11,156
of whom in Finland	**5,155**	5,176	5,945	6,125	6,141

Exchange rates

Key exchange rates (31 December)	
USD	**1.16674**
GBP	**0.70547**
NLG	**2.20371**
SEK	**9.48736**
DKK	**7.44892**
BEF	**40.3399**
FIM	**5.94573**

CONSOLIDATED INCOME STATEMENT

	Note	1.1. – 31.12. 1998 EUR million	1998 FIM million	1997 FIM million
Net sales	1	**2,412.7**	**14,345.2**	14,386.3
Share of associates' profits	2	**5.0**	**29.8**	30.4
Other income from operations	3	**16.4**	**97.4**	128.8
Cost of sales	4, 5	**–2,115.3**	**–12,576.8**	–12,385.2
Depreciation	6	**–170.7**	**–1,014.9**	–981.5
Operating income		**148.1**	**880.7**	1,178.8
Financing income and expenses	7	**–50.7**	**–301.7**	–314.7
Income before extraordinary items, taxes and minority interests		**97.4**	**579.0**	864.1
Extraordinary items	8	**–**	**–**	–
Income before taxes and minority interests		**97.4**	**579.0**	864.1
Direct taxes	9	**–19.3**	**–114.5**	–237.8
Income before minority interests		**78.1**	**464.5**	626.3
Minority interest		**0.5**	**3.0**	–7.3
Net income		**78.6**	**467.5**	619.0
Earnings per share, EUR and FIM	10	**0.6**	**3.6**	4.8

CONSOLIDATED BALANCE SHEET

	Note	31.12. 1998 EUR million	1998 FIM million	1997 FIM million
ASSETS				
Non-current assets				
Intangible assets	11	**68.7**	**408.5**	262.0
Tangible assets	12	**1,307.6**	**7,774.7**	7,666.6
Investments	13			
Holdings in associates		**41.6**	**247.2**	230.9
Other shares and holdings		**7.9**	**46.8**	49.7
Other investments		**18.4**	**109.6**	138.4
Total investments		**67.9**	**403.6**	419.0
Total non-current assets		**1,444.2**	**8,586.8**	8,347.6
Current assets				
Inventories	14	**429.2**	**2,551.7**	2,283.8
Receivables	15			
Interest-bearing receivables		**18.2**	**108.3**	73.6
Other interest-free receivables		**466.0**	**2,770.8**	2,659.4
Total receivables		**484.2**	**2,879.1**	2,733.0
Securities	22	**39.9**	**237.5**	444.8
Cash and bank	22	**55.6**	**330.5**	394.6
Total current assets		**1,008.9**	**5,998.8**	5,856.2
Total assets		**2,453.1**	**14,585.6**	14,203.8

	Note	31.12. 1998 EUR million	1998 FIM million	1997 FIM million
LIABILITIES AND SHAREHOLDERS' EQUITY				
Shareholders' equity	16, 17			
Share capital		**216.6**	**1,288.0**	1,288.0
Share premium account		**252.9**	**1,503.4**	1,503.4
Revaluation reserve		**8.5**	**50.8**	69.7
Other reserves		**3.8**	**22.8**	36.8
Retained earnings		**375.5**	**2,232.4**	1,972.6
Net profit for the financial year		**78.6**	**467.5**	619.0
Total shareholders' equity		**935.9**	**5,564.9**	5,489.5
Minority interests		**13.3**	**78.9**	47.0
Long-term liabilities				
Interest-bearing long-term liabilities	18, 22	**785.4**	**4,669.6**	4,551.4
Deferred tax liabilities	19	**63.5**	**377.7**	438.9
Provision for liabilities and charges	20	**44.0**	**261.7**	250.2
Total long-term liabilities		**892.9**	**5,309.0**	5,240.5
Current liabilities	21			
Interest-bearing short-term liabilities	22	**202.6**	**1,204.7**	717.9
Interest-free short-term liabilities		**408.4**	**2,428.1**	2,708.9
Total current liabilities		**611.0**	**3,632.8**	3,426.8
Total liabilities		**1,503.9**	**8,941.8**	8,667.3
Total liabilities and shareholders' equity		**2,453.1**	**14,585.6**	14,203.8

CONSOLIDATED CASH FLOW STATEMENT

	1998 EUR million	1998 FIM million	1997 FIM million
Funds from operations			
Operating income	**148.1**	**880.7**	1,178.8
Adjustments to operating income [1])	**1.3**	**7.4**	–60.4
Depreciation	**170.7**	**1,014.9**	981.5
Interest income	**10.7**	**63.6**	75.8
Interest expense	**–55.8**	**–331.6**	–385.1
Dividend received	**4.4**	**26.0**	2.0
Other financing items	**–7.5**	**–44.5**	–15.9
Extraordinary items	**–**	**–**	–
Taxes	**–38.2**	**–227.0**	–200.2
Total funds from operations	**233.7**	**1,389.5**	1,576.5
Change in net working capital			
Inventories	**–45.1**	**–267.9**	79.6
Short-term receivables	**–18.7**	**–111.4**	–211.0
Interest-free short-term liabilities	**–47.2**	**–280.8**	85.4
Change in net working capital, total	**–111.0**	**–660.1**	–46.0
Cash flow from operations	**122.7**	**729.4**	1,530.5
Capital expenditure			
Acquisitions of Group companies	**–76.9**	**–457.2**	–28.3
Acquisitions of associated companies	**–7.3**	**–43.2**	–5.7
Purchase of other shares	**–0.3**	**–1.9**	–1.8
Purchase of other fixed assets	**–171.0**	**–1,016.7**	–1,221.2
Disposal of Group companies	**0.2**	**0.9**	302.7
Disposal of associated companies	**4.9**	**29.4**	2.4
Sales of other shares	**0.4**	**2.4**	13.4
Sales of other fixed assets	**8.6**	**50.9**	45.0
Total capital expenditure	**–241.4**	**–1,435.4**	–893.5
Cash flow before financing	**–118.7**	**–706.0**	637.0
Financing			
Change in long-term loans (increase +, decrease –)	**60.0**	**356.7**	–601.0
Change in long-term loan receivables (increase –, decrease +)	**4.9**	**28.9**	3.2
Short-term financing, net (increase +, decrease –)	**52.6**	**313.0**	–419.2
Dividend paid	**–36.8**	**–219.0**	–206.1
Other	**–7.6**	**–45.0**	–50.7
Financing, total	**73.1**	**434.6**	–1,273.8
Increase / decrease in liquid funds	**–45.6**	**–271.4**	–636.8
Liquid funds at end of year	**95.5**	**568.0**	839.4
Liquid funds at beginning of year	**141.1**	**839.4**	1,476.2
Increase / decrease in liquid funds	**–45.6**	**–271.4**	–636.8

The above figures cannot be directly delivered from the balance sheets owing to changes, e.g., in the Group structure and foreign exchange rates.

[1]) Non-cash flow items included in operating income (e.g. results of associated companies) and gains and losses on the sale of fixed assets.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

Finnish accounting legislation allows the financial statements of Finnish companies to be prepared in accordance with a set of accounting principles that is substantially in compliance with International Accounting Standards. Kemira Oyj prepares its consolidated financial statements in accordance with accounting principles allowed by the legislation. The consolidated financial position and results of operations of Kemira Oyj as presented in the accompanying consolidated balance sheets and income statements comply, in all material respects, with International Accounting Standards. The principles set forth in the Finnish Accounting Act and Decree, which came into force on 31 December 1997, have also been observed in preparing the financial statements. The consolidated income statement, balance sheet, and cash flow as well as the key figures are stated in both Finnish markka amounts and in euros. Markka amounts have been translated into euros using the fixed conversion rate for all the years.

The financial statements are presented in Finnish markka and are prepared under the historical cost convention. In certain cases the figures have been modified by the revaluation of certain fixed assets in previous years.

Principles of consolidation

The consolidated financial statements include the accounts of the parent company, Kemira Oyj, and companies in which it owns, directly or indirectly through subsidiaries, over 50 percent of the voting rights. Certain real estate and housing companies, and captive insurance companies, as well as companies that had no operations during the financial year, have not been consolidated. However, the effect of these companies on the Group´s results and distributable reserves, in cases of any significance, has been consolidated using the equity method of accounting. Companies acquired during the accounting period are consolidated from the date the responsibility for their operations was transferred to the Group. Similarly, units or companies sold during the fiscal year are included in the income statement up to the date of disposition.

All intra-Group transactions have been eliminated as part of the consolidation process. Acquisitions of companies are accounted for under the purchase (past-equity) method of accounting. The excess of the acquisition cost over fair value of the net assets acquired is recorded as goodwill. Goodwill is amortized over the useful life of the assets acquired, which since 1998 has as a rule been a maximum of 5 years. Should a longer amortization period be justified, it is a maximum of 10-20 years. The interests of minority shareholders in the net assets and profit and loss of consolidated subsidiaries is reflected as a separate item in the Group´s consolidated balance sheet and income statement.

Companies in which the Group has a participating interest are associated companies, in which the interest is 20-50%. Holdings in associated companies are presented in the consolidated financial statements using the equity method of accounting. Under the equity method the Group´s proportionate share of the associated companies´ net income for the financial year is included in income and expenses from operations. Joint ventures that are owned on a fifty-fifty basis with another shareholder and in which the voting rights and management responsibility are divided evenly between the shareholders have been consolidated according to the proportionate method of accounting. Other companies (voting rights owned less than 20 percent) are stated at cost in the balance sheet and dividends received are included in the income statement.

Foreign currency items and derivative financial instruments

In day-to-day accounting of each Group company, transactions in foreign currencies are translated at the rates of exchange prevailing on the dates of the transactions. At the end of the accounting period the unsettled balances of foreign currency transactions are valued at the rates of exchange prevailing on the balance sheet date. Foreign exchange gains and losses related to normal business operations are treated as adjustments to sales and purchases, while those gains and losses associated with financing and hedging of the total foreign exchange position are recorded as financing income and expenses.

Derivative financial instruments to hedge currency and interest rate risks have been recorded in the income statement simultaneously with the commitment hedged. Derivative financial instruments which are not considered as hedging instruments are valued in the financial statements at the market price in accordance with conservative accounting practise. The interest portion of currency forwards is recorded as interest income and expense over the terms of the contract, and the differences in the foreign exchange rates are booked as a credit or charged to income when the underlying hedged transaction has been credited or charged to income in the financial statements.

In the consolidated financial statements, the income statements of foreign subsidiaries have been translated into Finnish markka amounts using the average exchange rates and the balance sheets have been translated using the year-end exchange rates. The translation difference, which arises in translating the income statement and balance sheet using the different exchange rates, is entered in non-restricted equity.

The Group seeks to hedge the translation risk of its investment in the net assets of foreign subsidiaries, which includes the original cost of ownership plus any undistributed post-acquisition profits and losses of those subsidiaries. Accordingly, the foreign currency-denominated shareholders´ equity in the Group´s non-Finnish subsidiaries are hedged against exchange rate changes using long-term foreign currency-denominated loans as well as forward and currency swap contracts. In the consolidated financial statements, the exchange rate gains and losses of such loans and forward and currency swap contracts are credited or charged against the translation differences arising from the translation of the shareholders´ equity amounts of the last confirmed balance sheets of the subsidiaries. Other translation differences affecting shareholders´ equity are stated as an increase or decrease in the non-restricted shareholders´ equity.

The foreign exchange rates on the balance sheet date are given on page 17.

Pensions and coverage of pension liabilities

The Group has various pension schemes in accordance with the local conditions and practices in the countries in which it operates. Contributions are based on periodic actuarial calculations and are charged against profits. The schemes are generally funded through payments to separate funds or to insurance companies.

The parent company´s pension arrangements have been handled within the separate pension funds. The uncovered liabilities of pension funds are presented in the parent company's financial statements in long-term interest-free receivables and in long-term interest-free liabilities.

Net sales

Net sales include the total invoicing value of products sold and services provided less sales tax, discounts, rebates and foreign exchange differences in accounts receivable.

Extraordinary income and expenses

Extraordinary income and expenses consist of items not incurred in the normal course of business, such as exceptionally large one-time expenses arising from the closures of plants and the reorganization of operations and divestments of entire businesses.

Income and expenses of recurring nature and connected with operations, for example, gains and losses on the sales of fixed assets, are included in operating income.

Extraordinary items of the parent company include Group contributions received and paid.

Direct taxes

The consolidated financial statements include direct taxes, which are based on the taxable results of the Group companies for the accounting period calculated according to local tax rules, and the change in the deferred tax liability and asset.

The Group's deferred tax liabilities and assets have been calculated according to the new IAS rules which came into force from the beginning of 1998 and which are allowed by the Finnish legislation. The deferred tax liability has been calculated for all significant temporary differences, which have been obtained by comparing the book value of each balance sheet item and the taxation value. Deferred tax assets are included in the financial statements only if the company considers that the temporary difference or tax loss will probably be realized in the near future and that the taxable unit will probably generate a sufficient amount of taxable income in order to be able to make use of the tax claim. Tax assets on confirmed losses have been stated observing particular caution. In calculating the deferred tax liability, the tax base in force at the time of preparing the financial statements has been applied.

The effect of the change that has been made in calculating taxes has been reported in its entirety in the income taxes for 1998 and for revaluation items it is included directly in shareholders' equity. The figures for comparison years have not been changed. The effect of the change on taxes for 1998 is discussed in the Notes to the financial statements.

The tax charged in the income statement of the parent company comprises direct taxes calculated on an accrual basis. The untaxed reserves of the parent company are shown as a separate item. Provision for deferred tax liability for the untaxed reserves has not been made in the balance sheet of the parent company.

Research and development expenditure

Research expenditure is expensed. Development expenditure is also expensed except for major projects for which investment decisions have been made. These are capitalized. Capitalized development costs are presented in the item "Other long-term expenditures" and amortized over their economic life, not exceeding, however, five years.

Non-current assets and depreciation

Non-current (fixed) assets are generally stated at cost, except for certain land and water areas and buildings which are stated at revalued amounts, less accumulated depreciation, as applicable.

Depreciation is calculated on a straight-line basis so as to write off carrying value of fixed assets over their expected useful lives. The depreciation periods adopted are as follows:

Machinery and equipment	3–15 years
Buildings and constructions	25 years
Other capitalized expenses	5–10 years
Goodwill on consolidation	5–10 years

As a general rule, interest expense is not capitalized, except in the United States. However, interest expenses related to capital borrowed to finance major capital investment projects can, when specifically approved by the Board, be capitalized as part of the total investment costs.

Gains and losses on the sale of fixed assets are included either in income and expenses of operations or in extraordinary items, depending on the nature of the transaction. In recent years, new revaluations have not been made within the Group.

Leasing

Leasing payments are treated as rental expenses except for finance leasing agreements, in which the leased property is presented as part of the Group´s fixed assets and the leasing debt is shown as a long-term liability. In respect of finance leasing agreements, the depreciation on the leased property and the interest expense on the debt are shown in the income statement instead of leasing rents.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined on a first in first out (FIFO) basis. Net realizable value is the amount which can be realized from the sale of the asset in the normal course of business, after allowing for the costs of realization. The cost of finished goods and work in process include an allocable proportion of production overheads.

Securities and other short-term investments

Securities and other short-term investments are a part of the Group´s cash management and are stated at lower of cost or market.

Costs of Year 2000 compliance

The Group is presently conducting assessment projects and system modernization projects to ensure a trouble-free transition to the year 2000. System modernizations are mainly connected with the development of operations and business processes, but they at the same time will replace old systems which would not be able to cope with the transition to the new millennium.

The costs of surveying the problem areas have been expensed in the financial year when they arose. Also charged as an expense are the costs of modifying information systems which are made exclusively to assure Year 2000 compliance and in which operational improvements or extensions to the system are not made. Other costs of upgrading information systems are capitalized in the normal manner and written off over the estimated useful life of the asset.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	**1998**	1997

1. NET SALES

Net sales by division

Kemira Chemicals	**3,743.8**	3,461.3
Kemira Pigments	**2,514.4**	2,450.8
Kemira Agro	**6,125.7**	6,413.8
Tikkurila	**2,143.4**	2,075.1
Other operations	**502.0**	663.2
Intra-Group invoicing	**–684.1**	–677.9
Total	**14,345.2**	14,386.3

Distribution of net sales by geographic market areas, as a percentage of total net sales

Finland	**21**	19
Other European Union countries	**53**	53
Other European countries	**8**	8
North and South America	**11**	11
Asia	**5**	7
Other countries	**2**	2
Total	**100**	100

2. SHARE OF ASSOCIATES' PROFITS

Share of associates' profits	**34.8**	36.2
Share of associates' losses	**–5.0**	–5.8
Total	**29.8**	30.4

3. OTHER INCOME FROM OPERATIONS

Gains on the sale of fixed assets	**19.2**	18.3
Sales of scrap and waste	**1.2**	5.2
Insurance compensation	**15.4**	15.3
Income from royalties, knowhow and licences	**21.1**	26.2
Rent income	**15.4**	9.8
Other income	**25.1**	54.0
Total	**97.4**	128.8

4. COST OF SALES

Change in inventories of finished goods	**–122.0**	14.1
Own work capitalized [1]	**–30.7**	–33.4
Materials and services		
Materials and supplies		
Purchases during the financial year	**6,687.6**	6,584.1
Change in inventories of materials and supplies	**–131.5**	3.2
External services [2]	**142.2**	90.5
Total materials and services	**6,698.3**	6,677.8
Personnel expenses	**2,610.6**	2,447.3
Rents	**142.2**	132.2
Losses on the sales of fixed assets	**–6.3**	10.7
Other expenses [2]	**3,284.7**	3,136.5
Total	**12,576.8**	12,385.2

In 1998 FIM 11.4 million of changes in long-term provision for liabilities and charges were included in costs (FIM –18.1 million in 1997).

[1] Own work capitalized comprises mainly wages, salaries and other personnel expenses and changes in inventories relating to self-constructed fixed assets for own use.

[2] External services include only items related to production. In 1997 FIM 677.1 million was presented as external services, of which FIM 586.7 million not related to production (largest item maintenance services), has been transferred to other expenses in comparison figures.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	**1998**	1997

5. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

Emoluments of the Supervisory Board	**0.2**	0.2
Emoluments of boards of directors and managing directors [1)]	**48.9**	49.8
Other wages and salaries	**1,959.0**	1,852.7
Pension expenses	**239.0**	191.5
Other personnel expenses	**363.5**	353.1
Total	**2,610.6**	2,447.3

[1)]Profit sharing bonuses to the management were FIM 3.9 million in 1998 and FIM 3.2 million in 1997.

Management's pension commitments
Whereas pension commitments of the Group companies to their employees vary, the management of each Group company is treated in the same way as the other permanent staff of that particular company. However, for the managing director of Tikkurila Oy, the pension regulations of the parent company apply and the retirement age of the managing director of Viljavuuspalvelu Oy has been lowered from 65 years to 63 years.

Personnel, average		
Kemira Chemicals	**3,114**	2,845
Kemira Pigments	**1,794**	1,851
Kemira Agro	**3,071**	3,117
Tikkurila	**2,214**	1,902
Other companies	**592**	677
Total	**10,785**	10,392

Personnel in Finland, average	**5,155**	5,176
Personnel outside Finland, average	**5,630**	5,216
Total	**10,785**	10,392

The total personnel of joint ventures that have been consolidated according to the proportionate method of accounting was 206 (207 in 1997).

Personnel at year end	**10,508**	10,203

6. DEPRECIATION

Scheduled depreciation		
Intangible assets		
Intangible rights	**9.4**	6.9
Goodwill	**6.7**	3.4
Goodwill on consolidation	**25.0**	17.1
Other long-term expenditures	**23.7**	17.0
Tangible assets		
Buildings and constructions	**134.7**	124.3
Machinery and equipment	**795.0**	791.5
Other tangible assets	**20.4**	21.3
Total	**1,014.9**	981.5

Scheduled depreciation for goodwill on consolidation was FIM 25.3 million (FIM 18.7 million in 1997) and on negative goodwill on consolidation FIM 0.3 million (FIM 0.9 million in 1997).

7. FINANCING INCOME AND EXPENSES

Financing income		
Dividend income	**6.4**	2.0
Interest income from long-term investments	**4.2**	6.9
Other interest income	**46.5**	68.9
Other financing income	**2.1**	0.9
Exchange gains	**–**	2.8
Total	**59.2**	81.5

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	**1998**	1997
Financing expenses		
Interest expenses	**–318.7**	–385.1
Other financing expenses	**–9.8**	–11.1
Exchange losses	**–32.4**	–
Total	**–360.9**	–396.2
Total financing income and expenses	**–301.7**	–314.7
Net financing expenses as a percentage of net sales	**2.1**	2.2
Net interests as a percentage of net sales	**1.9**	2.1
Exchange gains and losses		
Realized	**16.7**	–5.6
Unrealized	**–49.1**	8.4
Total	**–32.4**	2.8

Interest costs capitalized were FIM 0.3 million (1997 FIM 0.3 million).

The exchange differences on foreign currency loans and foreign currency derivatives have been credited or charged directly to shareholders´ equity and matched against the translation differences arising from the consolidation of foreign subsidiaries according to the so called equity hedging method. In 1998 these foreign exchange gains totalled FIM 18.4 million (in 1997 foreign exchange losses were FIM 100.7 million).

There were no financing income and expenses from associates.

8. EXTRAORDINARY ITEMS

There were no extraordinary income or expenses in 1998 and 1997.

9. DIRECT TAXES

Direct taxes, current year	**–224.4**	–196.7
Direct taxes, previous years	**–2.6**	–3.5
Deferred taxes, current year	**29.5**	–37.6
Tax related to changes in accounting practises	**83.0**	–
Total	**–114.5**	–237.8

Deferred tax liabilites and tax assets have been calculated according to IAS regulations, effective from 1 Jan. 1998. The change in accounting practises has reduced taxes FIM 83.0 million in the 1998 income statement. In addition a FIM 55.8 million tax liability has been calculated for previous years' revaluations. This amount has been deducted from equity.

There were no calculated tax expense related to extraordinary items in 1998 and in 1997.

10. EARNINGS PER SHARE

Income before extraordinary items and taxes	**579.0**	864.1
Minority interests	**3.0**	–7.3
Direct taxes of the financial year	**–114.5**	–237.8
Net income	**467.5**	619.0
Weighted average number of shares	**128,800,000**	128,800,000
Earnings per share, FIM	**3.6**	4.8

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

11. INTANGIBLE ASSETS

	Intangible rights	Goodwill	Goodwill on consoli-dation [1]	Other long-term expen-ditures	Advances paid	**1998 total**	1997 total
Acquisition cost at beginning of year	194.6	56.3	374.1	255.3	3.1	**883.4**	719.6
Increases	28.8	20.8	37.8	127.5	0.8	**215.7**	170.1
Decreases	–1.2	–	–	–2.1	–0.9	**–4.2**	–27.6
Exchange differences and other changes	–34.4	–1.6	15.0	–6.6	–1.0	**–28.6**	21.3
Acquisition cost at end of year	187.8	75.5	426.9	374.1	2.0	**1 066.3**	883.4
Accumulated depreciation at beginning of year	–122.1	–29.7	–267.0	–202.6	–	**–621.4**	–569.7
Accumulated depreciation relating to decreases and transfers	–1.2	–	–	–2.1	–	**–3.3**	11.3
Depreciation during the financial year	–9.4	–6.7	–25.0	–23.7	–	**–64.8**	–44.4
Exchange differences and other changes	1.7	1.0	22.1	6.9	–	**31.7**	–18.6
Accumulated depreciation at end of year	–131.0	–35.4	–269.9	–221.5	–	**–657.8**	–621.4
Net book value at end of year	56.8	40.1	157.0	152.6	2.0	**408.5**	262.0

[1] There were no goodwill on consolidation or negative goodwill on consolidation related to associates in 1998 and in 1997.

12. TANGIBLE ASSETS

	Land and water areas [1]	Buildings and construc-tions [2]	Machinery and equipment [3]	Other tangible assets	Advances paid and fixed assets under construction	**1998 total**	1997 total
Acquisition cost at beginning of year	588.0	3,439.0	13,636.1	461.5	526.1	**18,650.7**	17,527.2
Increases	21.3	183.9	1,084.8	61.9	–93.8	**1,258.1**	1,131.8
Decreases	–1.6	–4.1	–15.4	–0.5	–0.4	**–22.0**	-647.7
Exchange differences and other changes	–21.3	–43.5	–667.1	1.0	–38.6	**–769.5**	639.4
Acquisition cost at end of year	586.4	3,575.3	14,038.4	523.9	393.3	**19,117.3**	18,650.7
Accumulated depreciation at beginning of year	–	–1,625.7	–9,072.0	–286.4	–	**–10,984.1**	–9,980.2
Accumulated depreciation relating to decreases and transfers	–	2.3	172.2	0.2	–	**174.7**	282.3
Depreciation during the financial year	–	–134.7	–795.0	–20.4	–	**–950.1**	–937.0
Exchange differences and other changes	–	–1.5	413.3	5.1	–	**416.9**	–349.2
Accumulated depreciation at end of year	–	–1,759.6	–9,281.5	–301.5	–	**–11,342.6**	–10,984.1
Net book value at end of year	586.4	1,815.7	4,756.9	222.4	393.3	**7,774.7**	7,666.6

[1] The acquisition cost and book value of land and water areas include FIM 138.5 million revaluations in 1998 and in 1997.

[2] The acquisition cost of buildings and constructions include FIM 119.5 million revaluations in 1998 and in 1997.
Book value was FIM 56.2 million at the end of 1998 and FIM 60.9 million at the end of 1997.

[3] Non-depreciated capitalized interest expenses included in buildings were FIM 2.6 million in 1998 (FIM 2.7 million in 1997), in machinery and equipment FIM 13.6 million in 1998 (FIM 17.0 million in 1997) and in fixed assets under construction FIM 0.3 million in 1997. Capitalized interest expenses to machinery and equipment during 1998 were FIM 0.3 million (FIM 0.3 million in 1997).

13. INVESTMENTS

	Holdings in associates	Other shares and holdings	Receivables from associates	Other investments	**1998 total**	1997 total
Acquisition cost at beginning of year	230.9	49.7	3.6	134.8	**419.0**	281.6
Share of net income of associates	17.9	–	–	–	**17.9**	30.4
Increases	43.2	1.9	–	–	**45.1**	7.6
Decreases	–29.4	–2.4	–	–	**–31.8**	–15.8
Transfers	–11.4	0.4	–	–	**–11.0**	–11.0
Exchange differences and other changes	–4.1	–0.5	–	–	**–4.6**	–12.2
Reduction in value	0.1	–2.3	–	–	**–2.2**	–
Receivables from associates	–	–	1.4	–	**1.4**	3.6
Other receivables	–	–	–	–30.2	**–30.2**	134.8
Net book value at end of year	247.2	46.8	5.0	104.6	**403.6**	419.0

Shares and holdings are specified in Note 25.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

14. INVENTORIES

	1998	1997
Materials and supplies	**985.8**	892.9
Work in process	**112.7**	131.8
Finished goods	**1,437.5**	1,241.8
Advances paid	**15.7**	17.3
Total	**2,551.7**	2,283.8

15. RECEIVABLES

	1998	1997
Long-term receivables		
Interest-bearing long-term receivables		
Loan receivables from associates	**5.0**	3.6
Loan receivables from others	**0.3**	9.0
Other receivables from others	**0.5**	–
Total interest-bearing long-tem receivables	**5.8**	12.6
Interest-free long-term receivables		
Prepaid expenses and accrued income from others	**1.4**	2.1
Accounts receivable from others	**63.8**	0.3
Other receivables from others	**3.7**	19.3
Total interest-free long-tem receivables	**68.9**	21.7
Total long-term receivables	**74.7**	34.3
Current receivables		
Interest-bearing short-term receivables		
Loan receivables from others	**19.4**	10.2
Other receivables from others	**83.1**	50.8
Total interest-bearing short-term receivables	**102.5**	61.0
Interest-free short-term receivables		
Accounts receivables from associates	**21.8**	20.3
Accounts receivables from others	**2,338.7**	2,310.5
Advances paid from others	**11.0**	9.8
Prepaid expenses and accrued income from others	**154.3**	144.7
Other receivables from associates	**0.9**	1.4
Other receivables from others	**175.2**	151.0
Total interest-free short-term receivables	**2,701.9**	2,637.7
Total current receivables	**2,804.4**	2,698.7
Total receivables	**2,879.1**	2,733.0
Loans to the management of the Group companies	**0.3**	0.2

16. SHAREHOLDERS' EQUITY

	1998	1997
Share capital at 1 Jan. and 31 Dec.	**1,288.0**	1,288.0
Share premium account at 1 Jan. and 31 Dec.	**1,503.4**	1,503.4
Revaluation reserve at 1 Jan.	**69.7**	69.3
Transfer to retained earnings	**–18.4**	–
Other changes	**–0.5**	0.4
Revaluation reserve at 31 Dec.	**50.8**	69.7
Other funds at 1 Jan.	**36.8**	28.3
Transfer from retained earnings	**–**	12.1
Transfer to retained earnings	**–8.9**	–5.2
Other changes	**–5.1**	1.6
Other funds at 31 Jan.	**22.8**	36.8

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)	**1998**	1997
Retained earnings at 1 Jan.	**2,591.6**	2,108.2
Net profit for the year	**467.5**	619.0
Dividends paid	**–219.0**	–206.1
Exchange differences	**–110.8**	87.7
Transfer from other funds	**8.9**	5.2
Transfer to other funds	**–**	–12.0
Transfer from revaluation reserve	**18.4**	–
Deferred tax liability on revaluations	**–54.5**	–
Other changes	**–2.2**	–10.4
Retained earnings and net profit for the year at 31 Dec.	**2,699.9**	2,591.6
Total shareholders' equity at 31 Dec.	**5,564.9**	5,489.5

The parent company's payment of a dividend is limited by the Group's distributable equity, FIM 1,891.5 million (1998) and FIM 1,836.7 Mmk (1997), which is obtained when the amount of untaxed reserves transferred to the shareholders' equity account is subtracted from the non-restricted shareholders' equity. The balance sheet does not include capitalized research, establishment and development expenses which could limit the profit distribution.

The classification of share capital and the regulations in articles of associations are discribed in more deatailed on page 13. The company does not hold own shares.

17. APPROPRIATIONS

In the consolidated financial statements the appropriations of each individual company have been divided into equity and deferred tax liability.

Appropriations in the balance sheets of the Group companies are accumulated depreciation difference:

Of which equity	**808.4**	754.9
Of which deferred tax liability	**320.0**	305.2
Total accumulated depreciation difference	**1,128.4**	1,060.1
Change in appropriations, increase (+), decrease (–)		
Accumulated depreciation difference	**68.3**	121.4
Transitional reserve	**–**	–74.4
Other untaxed reserves	**–**	–0.9
Total	**68.3**	46.1

18. LONG-TERM INTEREST-BEARING LIABILITIES

Debentures and other bond loans	**367.0**	–
Loans from financial institutions	**1,743.0**	1,951.8
Loans from pension institutions	**1,986.7**	2,066.1
Other long-term liabilities to others	**572.9**	533.5
Total	**4,669.6**	4,551.4
Long-term interest-bearing liabilities maturing in		
2000 (1999)	**177.5**	541.2
2001 (2000)	**300.1**	516.9
2002 (2001)	**236.5**	337.6
2003 (2002)	**1,044.7**	312.5
2004 (2003) or later	**2,910.8**	2,843.2
Total	**4,669.6**	4,551.4
Interest-bearing liabilities maturing in 5 years or longer		
Loans from financial institutions	**863.6**	586.5
Loans from pension institutions	**1,634.2**	1,979.2
Other long-term interest-bearing liabilities	**413.0**	277.5
Total	**2,910.8**	2,843.2

Other long-term liabilities include a FIM 0.6 million issue of bonds with warrants offered to senior management. The issue is described in greater detail on page 13.

BALANCE SHEET (FIM million)

Long-term loans by currency, %

	1998	1997
FIM	**46**	42
SEK	**14**	17
BEF	**7**	8
USD	**9**	8
DKK	**6**	7
GBP	**7**	8
NLG	**6**	6
DEM	**2**	3
Other	**3**	1
Total	**100**	100

The Group has no convertible bonds.

Debentures and other bond loans

Loan		Loan currency	1998	1997
FI 0003008581	1998-2003	FIM	**269.0**	–
FI 0003008599	1998-2006	FIM	**98.0**	–
8300	1993-1998	FIM	**–**	49.0
Total			**367.0**	49.0

The 1997 bond loan is included in the current portion of loans from financial institutions.

19. DEFERRED TAX LIABILITIES

	1998	1997
Deferred tax liabilities	**490.3**	452.3
Deferred tax assets	**112.6**	13.4
Net deferred tax liabilities	**377.7**	438.9
Temprorary differences	**87.1**	118.3
Untaxed reserves	**320.0**	305.2
Consolidation entries	**–29.4**	15.4
Total	**377.7**	438.9

Deferred tax liabilities and tax assets have been calculated according to IAS regulations, effective from 1 January 1998. The change in accounting practices has increased tax assets by FIM 95.9 million and tax liabilities by FIM 68.8 million. The effect of the change in the accounting policy has been accounted for in the 1998 figures.

The deferred tax liabilities related to the untaxed reserves of the Finnish Group companies amounted to FIM 320.0 million in 1998 and FIM 305.2 million in 1997.

20. PROVISIONS FOR LIABILITIES AND CHARGES

Pension liabilities

	1998	1997
Uncovered liabilities of pension funds	**4.6**	4.5
Other pension liabilities	**135.5**	53.9
Total	**140.1**	58.4

Other provisions for liabilities and charges

	1998	1997
Provisions for reorganizations	**40.4**	129.8
Provisions for accidents and enviromental liabilities	**40.3**	26.2
Other provisions	**40.9**	35.8
Total	**121.6**	191.8
Total provisions for liabilities and charges	**261.7**	250.2

Provisions for liabilities and charges are expected to fall due in a year at the earliest. Short-term provisions (FIM 73.7 million in 1998 and FIM 121.1 million in 1997) are included in accrued expenses and prepaid income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)	1998	1997

21. CURRENT LIABILITIES

	1998	1997
Interest-bearing short-term liabilities		
Loans from financial institutions	**237.6**	104.5
Loans from pension institutions	**22.8**	24.1
Current portion of other long-term loans to others	**127.9**	120.7
Bills of exchange from others	**12.7**	8.9
Other interest-bearing short-term liabilities to associates	**2.8**	3.5
Other interest-bearing short-term liabilities to others	**800.9**	456.2
Total interest-bearing short-term liabilities	**1,204.7**	717.9
Interest-free short-term liabilities		
Advances received from others	**101.5**	166.8
Accounts payable to associates	**3.3**	5.2
Accounts payable to others	**1,162.6**	1,183.8
Accrued expenses and prepaid income to others	**1,000.0**	1,142.4
Other interest-free short-term liabilities to others	**160.7**	210.7
Total interest-free short-term liabilities	**2,428.1**	2,708.9
Total current liabilities	**3,632.8**	3,426.8

Accrued expenses and prepaid income
Accrued expenses and prepaid income in 1998 include FIM 240.7 million of salaries and personnel expenses, FIM 70.9 million of interests and FIM 91.7 million of taxes.

22. NET LIABILITIES

	1998	1997
Interest-bearing long-term liabilities	**4,669.6**	4,551.4
Interest-bearing short-term liabilities	**1,204.7**	717.9
Securities	**–237.5**	–444.8
Cash and bank	**–330.5**	–394.6
Total	**5,306.3**	4,429.9

23. COLLATERAL AND CONTINGENT LIABILITIES

	1998	1997
Loans secured by mortgages in the balance sheet and for which mortgages given as collateral		
Loans from financial institutions	**48.6**	47.6
Mortgages given	**58.7**	74.9
Loans from pension institutions	**661.3**	642.8
Mortgages given	**844.7**	882.6
Other loans	**6.7**	6.3
Mortgages given	**34.0**	10.5
Total mortgage loans	**716.6**	696.7
Total mortgages given	**937.4**	968.0
Contingent liabilities		
Assets pledged		
On behalf of own commitments	**62.0**	64.8
On behalf of others	**6.4**	25.0
Guarantees		
On behalf of associates	**144.9**	112.5
On behalf of others	**49.1**	52.9
Leasing obligations [1)]	**28.6**	34.0
Other obligations		
On behalf of associates	**6.4**	–
On behalf of others	**5.9**	7.0

In liabilities there are FIM 328 million of debts related to finance lease.

There were no collaterals or contingent liabilites related to managing directors, members or deputy members of board of directors and supervisory board.

[1)] Leasing payments in future years amount to FIM 87.5 million.

Litigation
The Group has extensive international operations and is a defendant or plaintiff in a number of proceedings incidental to those operations. The Group does not expect the outcome of any legal proceedings currently pending, either individually or in the aggregate, to have material adverse effect upon the Group's consolidated financial position or results of operations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

24. MANAGEMENT OF FINANCIAL RISKS

The Group's Treasury function is managed on a centralized basis. The objectives of Kemira's Treasury operations and the policy guiding them are approved by the company's Board of Directors. In addition, the Board of Directors confirms an action plan for treasury operations each year. The objective of financial risk management is to protect the company from unfavourable changes occurring in the financial markets and thus to contribute to safeguarding the company's earnings trend and its shareholders' equity. The company employs various financial instruments, such as forward rate agreements, options and futures, within the framework of the limits which have been set. Only such instruments are used whose market values and risks can be tracked continually and reliably within the company's risk management system.

Foreign exchange risk

Because a large part of the Group's production outside Finland is also sold outside Finland, the foreign currency risk in respect of the Finnish markka is confined to exports from Finland and to translating the result of foreign companies into Finnish markka. Imports to Finland reduce this risk in part. Currency flow exposure is hedged selectively in such a way that already assured foreign currency flows are hedged completely and a part of the forecast cash flows are hedged, to an increasing extent, the more probable it is that the flow will materialize. The basic guideline is that a minimum of 30% of the foreign currency flow that is forecast for the next 12 months must be hedged. Each subsidiary is separately responsible for taking its own hedging decisions. In 1998 the total volume of forward contracts that were made on behalf of subsidiaries and fell due in the same year was FIM 2,140 million. By contrast, the volume of forward contracts taken out in 1998 but which will fall due later was FIM 686 million. The hedging undertaken by the subsidiaries is supplemented, according to the Group's needs, by means of Group-level hedging measures that are carried out by Group Treasury and for which the limit set for 1998 was FIM 200 million. On a monthly basis, an average of about FIM 52 million of this limit was in use. The limit for 1999 is EUR 35 million. Hedging measures at the Group level have limits relating to both the nominal value and the market value and the actual figures are compared with these limits daily. The monitoring of currency flow exposure will be developed further at the Group level by means of more effective planning of cash flows.

The Group strives to hedge balance sheet risk by keeping foreign currency-denominated liabilities in balance, currency by currency, with the asset items in the balance sheet. The foreign currency-denominated shareholders' equity items of subsidiaries are hedged against foreign exchange fluctuations in accordance with the so-called equity hedging method by means of long-term foreign currency-denominated loans as well as by forward rate agreements and currency swaps. Because Finnish markka interest rates are clearly lower than the interest rates for the US dollar and the British pound, balance sheet hedging by means of foreign currency loans results in a substantial cost, which is taken into account when taking decisions regarding hedging. In hedging balance sheet risk, the equity ratio is monitored such that if a change of +/– 2.5% in the foreign exchange rates cause a one percentage point change in the equity ratio, hedging measures must be undertaken. Similarly, in respect of the balance sheet the value of unhedged shareholders' equity can in future be a maximum of 500 million euros. The degree of hedging of shareholders' equity in currencies outside the EMU area was about 17% at the end of 1998. The largest unhedged exposures were in Swedish krona and British pounds.

Interest rate risk

In accordance with the Group's risk management policy, the objective is to hedge against significant interest rate risks. In order to manage interest rate risks, the Group's borrowing and investments are spread out between fixed and variable interest rate instruments. In addition, interest rate swaps and forward rate agreements are used actively, as are other derivatives. A maximum of 50% of the Group's long-term liabilities can be fixed-rate borrowings. At the end of 1998, 24% of the Group's entire loan portfolio consisted of fixed-interest borrowings. Pension loans are considered to be variable-interest loans. Group Treasury also monitors the duration of the loan portfolio as well as its sensitivity to changes in the interest rate curve. The average interest fixing period of the entire loan portfolio at the end of 1998 was about one year, where the interest fixing period for pension loans has been set at one year. A one basis point change in the interest rate curve was allowed to cause a maximum change of FIM 600,000 in the market value of the asset-liability portfolio. The corresponding limit for 1999 is 135,000 euros. By a decision of the Board of Directors, the limits can be changed in accordance with the market situation. As a consequence of this policy, the Group's average interest rate level has in general been higher than the market level of short-term interest rates when low rates prevail and, on the other hand, lower than market level when high rates prevail.

Counterparty risk

Counterparty risks in treasury operations are mainly connected with investing funds and with the counterparty risks of derivative contracts. The Group accepts as its counterparty only financial institutions that have a good credit rating. At present there are more than 20 approved counterparties. A counterparty that has received a credit rating under the A level or an unrated counterparty must have a separate approval from the Board of Directors. At present this condition applies only to a few counterparties. Before being accepted as a counterparty, the financial institution must go through a special approval process. In addition, Group Treasury approves the new banking relationships of subsidiaries. Counterparty risk is monitored on a monthly basis by defining from the market values of receivables the maximum risk associated with each counterparty. For each financial institution, there is a limit that has been approved by the Board of Directors. Short-term investments are made in liquid instruments that have a low risk. Credit risks in treasury operations did not result in credit losses during the financial year.

Funding risk

The Group diversifies its funding risk by obtaining financing from different sources in different markets. The Group has bank loans, pension loans, insurance company loans, a Medium Term Note Programme as well as short-term domestic and foreign commercial paper programmes. The objective is to balance the maturity schedule of the bond and loan portfolio and to maintain a sufficiently long maturity for long-term loans. The Group's solvency and funding arrangements are safeguarded by maintaining good liquidity and by means of standby credit facilities. The Group's average liquidity in 1998 was FIM 688 million. At the end of 1998, the liquidity was FIM 568 million as well as an unutilized standby credit facility of FIM 1,896 million, or a total of FIM 2,464 million.

Documentation risk

The Group's documentation risk of financing agreements is managed by concentrating the approval of financing agreements within Group Treasury as well as by using standardized agreement models.

Financial instruments	**31.12.1998**		31.12.1997	
	Nominal value	**Fair value**	Nominal value	Fair value
Currency instruments				
Forward contracts	**2,253.0**	**–24.8**	3,636.4	8.7
Of which for hedging of future currency flows	**744.6**	**–15.0**	1,479.2	44.2
Currency options				
Bought	**230.0**	**5.2**	309.0	7.6
Sold	**352.3**	**–5.3**	498.7	–8.3
Currency swaps	**1,182.8**	**–33.2**	2,087.6	–31.7
Interest rate instruments				
Interest rate swaps	**716.5**	**–37.7**	1,936.4	–58.0
Forward rate agreements	**1,910.0**	**0.5**	15,180.6	1.2
Of which open	**94.0**	**0.5**	1,851.9	–
Bond futures	**–**	**–**	2,029.1	0.2
Of which open	**–**	**–**	207.1	–

Nominal values of the financial instruments do not necessarily correspond with the actual cash flows between the counterparties and do not therefore give a fair view of the risk position of the Group.

Fair values are based on market valuation on the date of reporting for the instruments which are publicly traded. Other instruments have been valued based on net present values of future cash flows. A valuation model has been used to estimate the fair values of options.

25. SHARES AND HOLDINGS OF GROUP COMPANIES

Associated companies [1)]

			Holding %
A/S Ammonia	Fredericia	Denmark	33
Alufluor AB	Helsingborg	Sweden	50
Aluminium Sulphate Co. of Egypt, S.A.E.	Cairo	Egypt	26
Aquanorm V.O.F.	Gorinchem	The Netherlands	50
DA Kemikaalide AS	Tallinn	Estonia	40
Indkoebsselskabet for Kali I/S	Fredericia	Denmark	50
Kemax B.V.	Rozenburg	The Netherlands	50
Kemira Compound Fertiliser (Zhanjiang) Co. Ltd.	Zhanjiang	China	35
Kemira Kuok Fertilizer Sdn. Bhd.	Kuala Lumpur	Malaysia	30
Kemira Thai Co. Ltd	Bangkok	Thailand	50
Kemira Trading Oy	Helsinki	Finland	100
Kemira-Ube Ltd	Tokyo	Japan	50
Kemwater Phil., Corp.	Manila	Philippines	40
KK Animal Nutrition (Pty) Ltd.	Durban	South Africa	50
Movere Oy	Lahti	Finland	40
Oy Polargas Ab	Oulu	Finland	30
PK Düngerhandelsgesellschaft m.b.H.	Hannover	Germany	50
Seco S.A.	Ribécourt	France	50
Superstar Fertilizers Co. Ltd	Bangkok	Thailand	40
Spruce Vakuutus Oy	Helsinki	Finland	100
UAB Kemira Lifosa	Kedainiai	Lithuania	33
Union Kemira Co.	Abu Dhabi	United Arab Emirates	49
Varteko Valduse AS	Pärnu	Estonia	42

[1)] Including such wholly owned companies that have been consolidated according to the equity method.

Real estate and housing companies are included in other shares.

Other shares and holdings

Ekokem Oy Ab	Finland	3
Peder P. Hedegaard A/S	Denmark	5
Primex Ltd	Barbados	7
Vierumäen Kuntokylä Oy	Finland	8

The list of consolidated subsidiaries is on pages 70–71.

26. CHANGES IN GROUP STUCTURE

Acquisitions and divestments of Group companies and new subsidiaries

- Kemira Agro Oy acquired a wholly-owned subsidiary, AS Fertimix, in Estonia.
- In January 1998 Corob S.p.A. acquired Swedish JLB Hultengren Co AB, which was renamed Corob Scandinavia AB.
- Kaanaan Ruskorae Oy was merged to Kemira Chemicals Oy on 27 February 1998.
- Tikkurila Coatings Oy established a wholly-owned subsidiary, ZAO Tikkurila Coatings, in Russia.
- Tikkurila Coatings Oy and Tikkurila Paints Oy established a joint venture together with Baltcolor in Poland. The new company was named Tikkurila Baltcolor Sp. z.o.o. Tikkurila Coatings Oy owns 30%, Tikkurila Paints Oy 30% and Baltcolor 40% of the company.
- Kemira Chemicals has increased its ownership in its Romanian subsidiaries and the Group's share is 73.3% of Kemwater Cristal S.A., 73.3% of Alchim S.r.l. and 50.2% of Societatea Comercala Chimbis S.A.
- Kemira Kemi AB and South African Kynoch Foods (Pty) Ltd established a joint venture, KK Animal Nutrition (Pty) Ltd, in South Africa in May. Kemira Kemi AB owns 50% of the company.
- Tikkurila CPS Oy established a subsidiary, Tikkurila CPS (SEA) Pte Ltd in Singapore.
- Kemira Kemi AB together with P.J. Ensio S.A. established a subsidiary, Kemwater de México, S.A. de C.V. Kemira Kemi AB owns 51% of the company.
- Kemira Kemi AB together with its subsidiary acquired a company, Kemwater ProChemie s.r.o. in Czech Republic. The Group owns 60.1% of the company.
- Kemira Chemicals Oy established a wholly-owned subsidiary, Kemira Chemicals Korea Corporation, in South Korea in August 1998. The new company acquired a hydrogen peroxide plant in South Korea.
- Tikkurila Paints Oy acquired a company, Imagica Ltd, in Great Britain.
- In September 1998 Tikkurila CPS established joint ventures together with Swisslog Management AG. Tikkurila owns 50% of them and they are its subsidiaries: Corob International AG, Corob Oy and Corob Color Robots B.V. Taotek Group was transferred from the ownership of Tikkurila CPS Oy to the ownership of Corob Color Robots B.V. A new company, Corob CPS Service Systems Ltd, was also established and is owned 100% by Corob S.p.A. and 50% by the Group. Spetra S.r.l. was transferred from Taotek S.p.A.'s ownership to Tikkurila Paints Oy's direct ownership.
- Kemira International Services S.A. was merged with Kemira S.A./N.V.
- Kemira Chemicals Oy established a wholly-owned subsidiary, Kemira Chemicals Canada Inc. in December 1998. The new company acquired a hydrogen peroxide plant in Canada.
- Kemira Chemicals Canada Inc. established a wholly-owned subsidiary, Kemira Chemicals U.S. Inc. for marketing of hydrogen peroxide in U.S.A.
- Kemira Chemicals established a company Kemira Chemicals S.A./N.V. in Belgium. Kemira Chem Holding B.V. has a 99% stake and Kemwater B.V. a 1% stake in the company.
- Multirange B.V. finished its operations.
- Kemira Chemicals Oy established a wholly-owned subsidiary, Kemwater GmbH, in Germany.
- Kemira Pigments Oy established a marketing company, Kemira Pigments Latin America Comercial Ltda. in Chile.

KEMIRA OYJ FINANCIAL STATEMENTS

INCOME STATEMENT

	Note	1998	1997
		1.1. – 31.12.	
		FIM million	FIM million
Net sales	1	**188.3**	197.2
Other income from operations	2	**2.8**	38.1
Cost of sales	3, 4	**–220.4**	–225.7
Depreciation	5	**–10.3**	–10.2
Operating income		**–39.6**	–0.6
Financing income and expenses	6	**48.5**	167.2
Income before extraordinary items, appropriations and taxes		**8.9**	166.6
Extraordinary items	7	**631.0**	325.6
Income before appropriations and taxes		**639.9**	492.2
Appropriations	8	**4.5**	59.3
Direct taxes	9	**–180.7**	–151.2
Net income		**463.7**	400.3

CASH FLOW STATEMENT

	1998	1997
	FIM million	FIM million
Funds from operations		
Operating income	**–39.6**	–0.6
Adjustments to operating income	**–**	42.0
Depreciation	**10.3**	10.2
Interest income	**154.6**	225.3
Interest expense	**–103.9**	–160.3
Dividend received	**20.8**	77.6
Other financing items	**17.5**	26.0
Taxes	**–141.4**	–74.7
Total funds from operations	**–81.7**	145.5
Change in net working capital		
Short-term receivables	**178.5**	–61.4
Interest-free short-term liabilities	**–244.1**	–44.9
Change in net working capital, total	**–65.6**	–106.3
Cash flow from operations	**–147.3**	39.2
Capital expenditure		
Acquisitions of Group companies	**–57.8**	–83.6
Acquisitions of associated companies	–8.0	–
Purchase of other fixed assets	–3.8	–5.0
Disposal of Group companies	–	205.3
Disposal of associated companies	4.9	–
Sales of other fixed assets	1.5	0.6
Total capital expenditure	**–63.2**	117.3
Cash flow before financing	**–210.5**	156.5
Financing		
Change in long-term loans (increase +, decrease –)	**561.9**	93.1
Change in long-term loan receivables (increase +, decrease –)	**–537.3**	238.6
Short-term financing, net (increase +, decrease –)	**741.6**	–1 360.1
Group contribution	**371.0**	445.1
Dividend paid	**–219.0**	–206.1
Other	**–**	–0.1
Financing, total	**918.2**	–789.5
Increase / decrease in liquid funds	**707.7**	–633.0
Liquid funds at end of year	**1 643.9**	936.2
Liquid funds at beginning of year	**936.2**	1 569.2
Increase / decrease in liquid funds	**707.7**	–633.0

BALACE SHEET

	Note	1998	1997
		31.12.	
		FIM million	FIM million
ASSETS			
Non-current assets			
Intangible assets	10	**1.6**	3.3
Tangible assets	11	**130.3**	136.6
Investments	12		
Shares in Group companies		**2,259.2**	2,221.4
Holdings in associates		**29.7**	26.6
Other shares and holdings		**18.3**	18.3
Other investments		**2,555.1**	2,017.8
Total investments		**4,862.3**	4,284.1
Total non-current assets		**4,994.2**	4,424.0
Current assets			
Receivables	13		
Interest-bearing receivables		**419.9**	752.4
Interest-free receivables		**812.9**	724.3
Total receivables		**1,232.8**	1,476.7
Securities	14	**1,618.9**	903.2
Cash and bank		**25.1**	33.0
Total current assets		**2,876.8**	2,412.9
Total assets		**7,871.0**	6,836.9

	Note	1998	1997
		31.12.	
		FIM million	FIM million
LIABILITIES AND SHAREHOLDERS' EQUITY			
Shareholders' equity	15		
Share capital		**1,288.0**	1,288.0
Share premium account		**1,503.4**	1,503.4
Retained earnings		**889.3**	708.2
Net profit for the financial year		**463.7**	400.3
Total shareholders' equity		**4,144.4**	3,899.9
Appropriations	16	**2.9**	7.4
Long-term liabilities			
Interest-bearing long-term liabilities	17	**2,289.7**	1,816.8
Interest-free long-term liabilities	18	**8.6**	8.1
Total long-term liabilities		**2,298.3**	1,824.9
Current liabilities	19		
Interest-bearing short-term liabilities		**1,206.1**	708.0
Interest-free short-term liabilities		**219.3**	396.7
Total current liabilities		**1,425.4**	1,104.7
Total liabilities		**3,723.7**	2,929.6
Total liabilities and shareholders' equity		**7,871.0**	6,836.9

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS
INCOME STATEMENT (FIM million)

1. NET SALES

	1998	1997
Net sales	**188.3**	197.2

Net sales consists of sale of electricity to Finnish Group companies and other external customers in Finland.

2. OTHER INCOME FROM OPERATIONS

	1998	1997
Gains on the sale of fixed assets	**0.3**	34.5
Other income	**2.5**	3.6
Total	**2.8**	38.1

3. COST OF SALES

	1998	1997
Materials and services		
Materials and supplies		
Purchases during the financial year	**152.4**	148.4
External services [1])	**1.0**	1.0
Total materials and services	**153.4**	149.4
Personnel expenses	**35.1**	32.6
Rents	**14.5**	13.8
Losses on the sales of fixed assets	**0.1**	14.0
Other expenses	**17.3**	15.9
Total	**220.4**	225.7

[1]) External services include only items related to production. In 1997 FIM 11.5 million was presented as external services, of which FIM 10.5 million was not related to production and was transferred to other expenses in comparison figures.

4. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

	1998	1997
Emoluments of the Supervisory Board	**0.2**	0.2
Emoluments of boards of directors and managing directors [1])	**4.7**	4.4
Other wages and salaries	**23.6**	25.1
Pension expenses	**3.3**	0.2
Other personnel expenses	**3.3**	2.7
Total	**35.1**	32.6

[1]) Profit sharing bonuses to the management were FIM 0.2 million in 1998 and FIM 0.1 million in 1997.

Management's pension commitments
The pension commitments to the management of the company do not differ from those to the other permanent staff.

Personnel

	1998	1997
Personnel, average	**133**	136
Personnel at year end	**130**	137

5. DEPRECIATION

	1998	1997
Scheduled depreciation		
Intangible assets		
Intangible rights	**0.4**	0.2
Other long-term expenditures	**0.4**	0.4
Tangible assets		
Buildings and constructions	**5.4**	5.5
Machinery and equipment	**4.0**	4.0
Other tangible assets	**0.1**	0.1
Total	**10.3**	10.2
Decrease in difference between scheduled and actual depreciation		
Intangible assets	**0.1**	–0.2
Other long-term expenditures	**–**	–0.2
Buildings and constructions	**2.5**	2.4
Machinery and equipment	**1.9**	2.3
Total	**4.5**	4.3

6. FINANCING INCOME AND EXPENSES

	1998	1997
Financing income		
Dividend income		
Dividend income from Group companies	**16.5**	55.8
Dividend income from associates	**3.2**	20.4
Dividend income from others	**8.6**	1.4
Total dividend income	**28.3**	77.6
Interest income		
From long-term investments from Group companies	**151.6**	144.5
From short-term investments from Group companies	**50.5**	40.9
From short-term investments from others	**21.2**	39.8
Total interest income	**223.3**	225.2

	1998	1997
Other financing income		0.3
Other financing income from Group companies	**1.0**	1.0
Other financing income from others	**0.9**	
		95.9
Extraordinary expenses		
Group contribution granted	14.8	120.3
Write-downs on shares	**20**.0	50.0
Total	34.8	170.3
Total extraordinary income and expenses	631.0	325.6

8. CHANGE IN APPROPRIATIONS

	1998	1997
Decrease in depreciation difference	4.5	4.3
Decrease in transitional reserve	–	55.0
Total	4.5	59.3

9. DIRECT TAXES

	1998	1997
Direct taxes on extraordinary items	176.7	91.2
Direct taxes, current year	3.4	58.0
Direct taxes, previous years	0.4	1.6
Other	**0.2**	0.4
Total	180.7	151.2

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS
BALANCE SHEET (FIM million)

10. INTANGIBLE ASSETS

	Intangible rights	Other long-term expenditures	1998 total	1997 total
Acquisition cost at beginning of year	**4.6**	7.1	11.7	9.7
Increases	0.1	0.1	0.2	**2.0**
Decreases	**–1.4**	–	**–1.4**	–
Acquisition cost at end of year	**3.3**	7.2	10.5	11.7
Accumulated depreciation at beginning of year	–1.9	–6.5	**–8.4**	**–7.8**
Accumulated depreciation relating to decreases and transfers	0.2	–	0.2	–
Depreciation during the financial year	–0.4	–0.3	–0.7	–0.6
Accumulated depreciation at end of year	**–2.1**	**–6.8**	**–8.9**	**–8.4**
Net book value at end of year	1.2	0.4	1.6	**3.3**

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS
BALANCE SHEET (FIM million)

11. TANGIBLE ASSETS

	Land and water areas 1)	Buildings and constructions 2)	Machinery and equipment 3)	Other tangible assets	Advances paid and fixed assets under construction	**1998 total**	1997 total
Acquisition cost at beginning of year	16.1	167.8	54.5	2.9	–	**241.3**	240.5
Increases	–	–	3.2	–	0.4	**3.6**	3.0
Decreases	–	–	–1.3	–	–	**–1.3**	–2.2
Acquisition cost at end of year	16.1	167.8	56.4	2.9	0.4	**243.6**	241.3
Accumulated depreciation at beginning of year	–	–61.1	–41.4	–2.2	–	**–104.7**	–95.1
Accumulated depreciation relating to decreases and transfers	–	–	1.0	–	–	**1.0**	–
Depreciation during the financial year	–	–5.5	–4.0	–0.1	–	**–9.6**	–9.6
Accumulated depreciation at end of year	–	–66.6	–44.4	–2.3	–	**–113.3**	–104.7
Net book value at end of year	16.1	101.2	12.0	0.6	0.4	**130.3**	136.6

1) The acquisition cost and the book value of land and water areas include revaluations of FIM 3.5 million in 1998 and in 1997.

2) The acquisition cost of buildings and constructions include revaluations of FIM 30.0 million in 1998 and in 1997.

3) Book value of production machinery and equipment was FIM 0.01 million at 31 Dec. 1998 and FIM 0.4 million at 31 Dec. 1997.

12. INVESTMENTS

	Holdings in associates	Group company and other shares	Investments in Group companies	**1998 total**	1997 total
Acquisition cost at beginning of year	26.6	2,239.7	2,017.8	**4,284.1**	2,438.1
Increases	8.0	57.8	–	**65.8**	83.5
Decreases	–4.9	–20.0	–	**–24.9**	–255.3
Receivables from Group companies	–	–	537.3	**537.3**	2,017.8
Net book value at end of year	29.7	2,277.5	2,555.1	**4,862.3**	4,284.1

Shares and holdings are specified in Note 21.

	1998	1997
Taxable values of real estate and securities included in non-current assets		
Land and water areas	**3.2**	3.2
Buildings and constructions	**85.0**	83.4
Shares in subsidiaries	**2,505.9**	2,393.9
Other shares and holdings	**27.2**	25.6

To the extent that taxation values have not been confirmed for shares and holdings, book values have been used.

13. RECEIVABLES

Long-term receivables		
Interest-free long-term receivables		
Receivable from pension liability at 1 Jan.	**8.1**	10.0
Increase / decrease	**0.5**	–1.9
Receivable from pension liability at 31 Dec.	**8.6**	8.1
Total interest-free long-tem receivables	**8.6**	8.1
Total long-term receivables	**8.6**	8.1
Current receivables		
Interest-bearing short-term receivables		
Loan receivables from Group companies	**419.9**	752.4
Total interest-bearing short-term receivables	**419.9**	752.4
Interest-free short-term receivables		
Accounts receivable		
Accounts receivables from Group companies	**16.4**	15.0
Accounts receivables from others	**10.5**	15.4
Total accounts receivable	**26.9**	30.4
Advances paid	**0.7**	1.3
Prepaid expenses and accrued income		
Prepaid expenses and accrued income from group companies	**741.5**	635.4
Prepaid expenses and accrued income from others	**35.2**	49.1
Total prepaid expenses and accrued income	**776.7**	684.5
Total interest-free short-term receivables	**804.3**	716.2
Total current receivables	**1,224.2**	1,468.6
Total receivables	**1,232.8**	1,476.7
Loans to the management	**–**	–
Prepaid expenses and accrued income		
from interests	**68.7**	65.1
from taxes	**–**	0.2
from exchange differences	**16.7**	116.1
from Group contribution	**665.9**	492.0
Other	**25.4**	11.1
Total	**776.7**	684.5

14. SECURITIES

	1998	1997
Securities in Group companies	**1,480.1**	593.0
Securities in other companies	**138.8**	310.2
Total	**1,618.9**	903.2

15. SHAREHOLDERS' EQUITY

Share capital at 1 Jan. and 31 Dec.	**1,288.0**	1 288.0
Share premium account at 1 Jan. and 31 Dec.	**1,503.4**	1 503.4
Retained earnings at 1 Jan.	**1,108.5**	914.4
Net profit for the year	**463.7**	400.3
Dividends paid	**–218.9**	–206.1
Donations	**–0.3**	–0.1
Retained earnings and net profit for the year at 31 Dec.	**1,353.0**	1 108.5
Total shareholders' equity at 31 Dec.	**4,144.4**	3 899.9

16. APPROPRIATIONS

Appropriations		
Appropriations in the balance sheets are as follows:		
Buildings and constructions	**–1.1**	1.4
Machinery and equipment	**4.0**	5.9
Other tangible assets	**0.4**	0.4
Intangible rights	**–0.1**	–
Other long-term expenditures	**–0.3**	–0.3
Total	**2.9**	7.4
Change in appropriations		
Appropriations at 1 Jan.	**7.4**	66.7
Change in untaxed reserves	**–4.5**	–59.3
Appropriations at 31 Dec.	**2.9**	7.4

Deferred tax liabilities on accumulated depreciations was FIM 0.8 million at 31 Dec. 1998 and FIM 2.1 million at 31 Dec. 1997.

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS
BALANCE SHEET (FIM million)

	1998	1997
17. LONG-TERM INTEREST-BEARING LIABILITIES		
Debentures and other bond loans	**367.0**	–
Loans from financial institutions	**1,534.0**	1,404.8
Loans from pension institutions	**388.1**	411.4
Other long-term liabilities	**0.6**	0.6
Total	**2,289.7**	1,816.8
Long-term interest-bearing liabilities maturing in		
2000 (1999)	**2.3**	412.3
2001 (2000)	**103.8**	85.3
2002 (2001)	**42.3**	133.6
2003 (2002)	**801.7**	200.0
2004 (2003) or later	**1,339.6**	985.6
Total	**2,289.7**	1,816.8
Interest-bearing liabilities maturing in 5 years or longer		
Loans from pension institutions	**388.1**	411.4
Other long-term interest-bearing liabilities	**951.5**	574.2
Total	**1,339.6**	985.6

Debentures and other bond loans

Loan		Loan currency	1998	1997
FI 0003008581	1998-2003	FIM	**269.0**	–
FI 0003008599	1998-2006	FIM	**98.0**	–
8300	1993-1998	FIM	**–**	49.0
Total			**367.0**	49.0

The 1997 bond loan is included in the current portion of loans from financial institutions

Other long-term liabilities include a FIM 0.6 million issue of bonds with warrants offered to senior management.The issue is described in more detail on page 13.

The Group has no convertible bonds.

	1998	1997
18. LONG-TERM INTEREST-FREE LIABILITIES		
Pension liabilities		
Uncovered liabilities of pension funds	**0.3**	0.4
Other pension liabilities	**8.3**	7.7
Total	**8.6**	8.1
19. CURRENT LIABILITIES		
Interest-bearing short-term liabilities		
Loans from financial institutions	**600.7**	181.0
Current portion of other long-term loans to others	**183.4**	94.4
Other interest-bearing short-term liabilities		
to Group companies	**342.5**	387.5
to others	**79.5**	45.1
Total interest-bearing short-term liabilities	**1,206.1**	708.0
Interest-free short-term liabilities		
Accounts payable		
to Group companies	**0.2**	0.5
to others	**16.3**	17.8
Total accounts payable	**16.5**	18.3
Accrued expenses and prepaid income		
to Group companies	**39.8**	145.1
to others	**161.7**	230.1
Total accrued expenses and prepaid income	**201.5**	375.2
Other short-term liabilites to others	**1.3**	3.2
Total interest-free short-term liabilities	**219.3**	396.7
Total current liabilities	**1,425.4**	1,104.7
Accrued expenses and prepaid income		
from salaries	**5.3**	6.9
from interests and exchange differences	**133.5**	183.6
from taxes	**39.2**	76.4
from Group contribution	**0.9**	107.0
Other	**22.6**	1.3
Total	**201.5**	375.2

	1998	1997
20. COLLATERAL AND CONTINGENT LIABILITIES		
Loans secured by mortgages in the balance sheet and for which mortgages have been given as collateral		
Loans from pension institutions	**30.0**	20.0
Mortgages given	**30.0**	30.0
Contingent liabilities		
Assets pledged		
On behalf of own commitments	**20.6**	–
On behalf of Group companies	**65.0**	60.0
Guarantees		
On behalf of Group companies		
for loans	**720.9**	1,026.6
for leasing obligations	**300.1**	333.7
for other obligations	**6.7**	106.0
On behalf of associates	**135.2**	73.5
On behalf of others	**13.3**	14.6
Total	**1,176.2**	1,554.4
Letter of Comfort obligations [1]		
On behalf of Group companies		
for credits	**11.7**	105.4
for leasing agreements	**27.0**	38.3
Total	**38.7**	143.7

The nominal values and market values of financing instruments are included in the Notes to the consolidated financial statements.

[1] Letter of Comfort obligations do not constitute a legal guarantee.

21. SHARES AND HOLDINGS OF KEMIRA OYJ

		Holding %
Shares in subsidiaries		
Kemira Agro Oy	Helsinki, Finland	100
Kemira Chemicals Oy	Helsinki,Finland	100
Kemira Pigments Holding B.V.	Rotterdam,The Netherlands	18[1])
Kemira Metalkat Oy	Helsinki, Finland	100
Kemira Pigments Oy	Helsinki, Finland	100
Kemira Safety Oy	Helsinki, Finland	100
Tikkurila Oy	Helsinki, Finland	100
Spruce Vakuutus Oy	Helsinki, Finland	100
Other shares and holdings		
Ekokem Oy Ab	Finland	1
Forcit Oy	Finland	15
Innopoli Oy	Finland	1
Liikkeenjohdon koulutuskeskus	Finland	2
Luoston Huolto Oy	Finland	1
Tahkoluodon Polttoöljy Oy	Finland	7
Teollisuuden Sähkönmyynti Oy	Finland	18
Teollisuuden Voima Oy	Finland	2
Shares in housing and real estate companies		
Shares in telephone companies		

[1]) The ownership of the Group is 100%.

PROPOSAL FOR THE DISTRIBUTION OF PROFITS

The net profit of Kemira Oyj for the 1998 financial year was FIM 463,705,676 and the distributable equity at 31 December 1998 was FIM 1,352,973,731. The Group's non-restricted equity at 31 December 1998 was FIM 2,699,891,000. The parent company's payment of a dividend is limited by the Group's distributable equity, FIM 1,891,495,000, which is obtained when the share of voluntary reserves that has been transferred to shareholders' equity is subtracted from the non-restricted equity shown in the Consolidated Balance Sheet.

It is proposed to the Annual General Meeting that a dividend for the financial year of 17%, or FIM 218,960,000, be paid on the registered share capital of FIM 1,288,000,000. It is proposed that FIM 2,500,000 be reserved for use by the Board of Directors for purposes promoting the common good (among other things, for donations to the Kemira Oyj Foundation).

Helsinki, 15 February 1999

Heimo Karinen

Timo Mattila *Juhani Kari*

Esa Tirkkonen *Leif Ekström*

Sten-Olof Hansén

AUDITORS' REPORT

To the shareholders of Kemira Oyj

We have audited the accounting records and the financial statements, as well as the administration by the Supervisory Board, the Board of Directors and the Managing Director of Kemira Oyj for the year ended 31 December 1998. The financial statements, which include the report of the Board of Directors, consolidated and parent company income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the Managing Director. Based on our audit we express an opinion on these financial statements and the company's administration.

We have conducted our audit in accordance with Finnish Generally Accepted Auditing Standards. Those standards require that we plan and perform the audit in order to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. The purpose of our audit of the administration has been to examine that the Supervisory Board, the Board of Directors and the Managing Director have complied with the rules of the Finnish Companies Act.

In our opinion, the financial statements have been prepared in accordance with the Finnish Accounting Act and other rules and regulations governing the preparation of financial statements in Finland. The financial statements give a true and fair view, as defined in the Accounting Act, of both the consolidated and parent company result of operations, as well as of the financial position. The financial statements can be adopted and the members of the Supervisory Board, the Board of Directors and the Managing Director of the parent company can be discharged from liability for the period audited by us. The proposal made by the Board of Directors on how to deal with the retained earnings is in compliance with the Finnish Companies Act.

We have acquainted ourselves with the interim financial statements made public by the company during the year. It is our understanding that the interim financial statements have been prepared in accordance with the rules and regulations governing the preparation of such statements in Finland.

Helsinki, 16 February 1999

KPMG WIDERI OY AB

Hannu Niilekselä
Authorized Public Accountant

STATEMENT OF THE SUPERVISORY BOARD

The Supervisory Board of Kemira Oyj has read the financial statements of the parent company and the Group for 1998 and studied the Auditors' report at its meeting today.

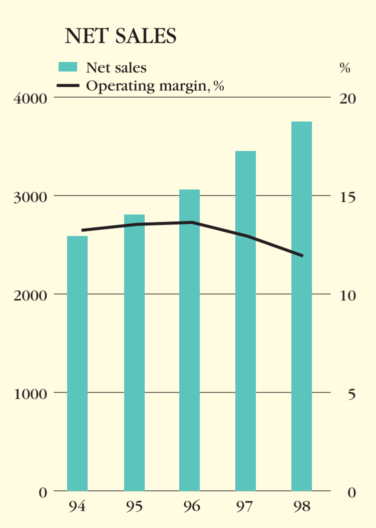
The Supervisory Board advises the 1999 Annual General Meeting that the company has been managed well and that it has no comments to make on the financial statements of the parent company and the Group for 1998. The Supervisory Board proposes that the financial statements of the parent company and the Group be adopted and that the Board of Directors, the Managing Director and his deputies be discharged from liability. The Supervisory Board concurs with the proposal of the Board of Directors for the distribution of profit funds.

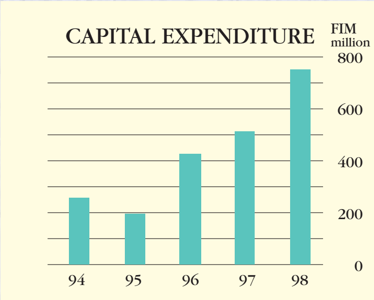
Helsinki, 18 February 1999

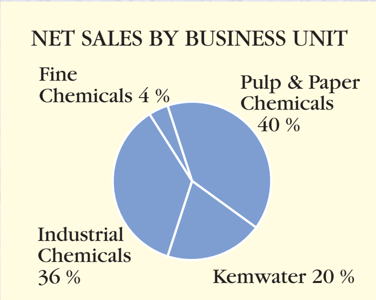
Kari Rajamäki	*Hanna Markkula-Kivisilta*
Helena Rissanen	*Risto Ranki*
Sirpa Hertell	*Mikko Långström*

Niilo Pellonmaa

KEMIRA CHEMICALS







MANAGEMENT

President: Yrjö Sipilä
Pulp & Paper Chemicals: Juhani Lindholm
Kemwater: Kjell Stendahl
Industrial Chemicals: Ingvar Pettersson

Yrjö Sipilä

NET SALES AND RESULT

For Kemira Chemicals, the year was marked by acquisitions and the establishment of new companies as well as by sudden changes in the market. From January to August, it appeared that the previous records would be exceeded by a big margin. In the autumn, there was an abrupt downturn in several market areas. As a result of this, the growth in both net sales and operating income fell markedly short of expectations. Nonetheless, Kemira Chemicals continued its brisk growth in 1998. Net sales rose by 8% and were FIM 3,744 million (3,461 million). Operating income was FIM 447 million, and due to the slowdown in the latter part of the year, it thus remained at the previous year's level (448 million). Operating profit is also burdened by pension expenses which for a number of different reasons were significantly higher than they were in 1997.

All the strategic business units – Pulp & Paper Chemicals, Kemwater and Industrial Chemicals – increased their sales. Net sales of the Pulp & Paper Chemicals unit rose by 9% and were FIM 1,648 million. Kemwater's net sales were up 15% to FIM 806 million. Industrial Chemicals' net sales were FIM 1,463 million, an increase of 9%. Kemira Fine Chemicals Oy reported net sales of FIM 155 million, up 6%.

MARKETS

Pulp & Paper Chemicals. The pulp and paper industry was running at full tilt in the first part of the year. In the autumn and late summer, a downturn occurred, pushing the price of pulp into decline and leading to increased shutdowns of paper machines. The volume of production in the client industry is quickly reflected in the demand for chemicals. This meant that the first part of the year was a time of growth for the unit, whereas the trend slumped in the latter part of the year.

The hydrogen peroxide market continued its brisk growth during the year. Accordingly, the price of the product rose from the low level in 1997 towards a more normal price.

Kemwater. The market for water treatment chemicals developed in line with expectations. Growth continued in eastern and southern Europe. The need for water purification in developing countries is growing and a number of projects in this area are under way. The crisis in Asia has deferred many infrastructure investments, including water treatment plants. The Russian situation hampered exports to the East in the latter months of the year.

Industrial Chemicals. The demand and price situation for phosphoric acid remained stable. The weakening of the exchange ratio between the United States dollar, which is used as the pricing currency for phosphoric acid, and the Finnish markka put pressure on margins towards the end of the year. There was tough competition within value added products made from phosphoric acid, particularly detergent phosphates. Kemira's share of the feed phosphate market rose significantly following the acquisition of BASF's phosphate business.

In Helsingborg, Sweden, the sodium percarbonate plant came on stream at the turn of the year 1997-98. The new ECOX product has been well received by the detergent industry.

The calcium chloride market was depressed owing to unfavourable weather. Continental Europe had a mild winter and this reduced use of the product in de-icing. In the summer, on the other hand, heavy rainfall did away with the need for dust binding in the Nordic countries. The market outlook for the coming year in Europe is nevertheless clearly more positive because production capacity has been reduced. A new manufacturing line that produces granulated calcium chloride – say, for moisture removal in wine cellars – went into operation at the end of the year.

Kemira Fine Chemicals Oy. The company's most important area of expertise is life sciences products, which

KEMIRA CHEMICALS

	1998 MEUR	**1998 MFIM**	1997 MFIM	1996 MFIM	1995 MFIM	1994 MFIM
Net sales	**630**	**3,744**	3,461	3,090	2,809	2,591
Cost of sales	**-506**	**-3,011**	-2,744	-2,419	-2,205	-2,017
Depreciation	**-48**	**-286**	-269	-250	-225	-233
Operating income	**76**	**447**	448	421	379	341
Net financing expenses	**-20**	**-117**	-101	-121	-163	-156
Income before extraordinary items	**56**	**330**	347	300	216	185
Capital invested (average)	**524**	**3,115**	2,692	2,465	2,407	2,451
Return on capital invested %	**14**	**14**	17	18	16	15
Capital expenditure	**126**	**751**	514	426	195	256
Personnel (average)	**3,114**	**3,114**	2,845	2,283	2,251	2,221

In South Korea, Kemira Chemicals bought a hydrogen peroxide plant that excellently complements the joint venture in Japan. Kemira now has production plants in all the most important market areas in Europe, North America and Asia. (Photograph: Kemira Chemicals archives)

the large companies in the field use as their raw materials. Demand is growing rapidly because the big life sciences companies are concentrating on research and development as well as marketing.

BUSINESS DEVELOPMENT

The most important joint development project for all the businesses was an extensive information management project that was completed on schedule and on budget towards the end of the year. An integrated SAP R/3 system was installed in all the plant localities in Finland as well as in Sweden and the Netherlands. System start-up went well. An essential part of the development project is the core competence philosophy and the introduction of an extensive process-based organization.

At Kemira Kemi AB in Sweden, a profit-boosting efficiency project was launched with the aim of saving FIM 30 million a year beginning in 1999. The 1998 income therefore includes FIM 10 million of non-recurring expenses.

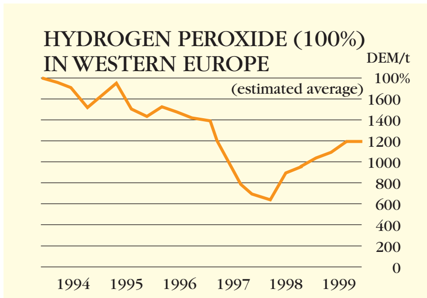
Pulp & Paper Chemicals. Kemira Chemicals acquired two hydrogen peroxide plants: one in Korea from Hanwha Chemicals and the other in Canada from DuPont. The Korean plant has a production capacity of 34,000 t/a and the new company, Kemira Chemicals Korean Corporation, employs 40 people. It excellently complements the joint venture in Japan, Kemira-Ube Ltd. The plants are only 250 km apart. The plant in Ontario, Canada, was purchased right at the end of the year. The company's name is Kemira Chemicals Canada, Inc. and it has a production capacity of 41,000 t/a.

Following these two acquisitions, Kemira ranks as the fifth largest producer of hydrogen peroxide in the world and operates in all the most important market areas in Europe, North America and Asia.

In the area of speciality chemicals for the paper industry, expansion investments were likewise made and new co-operation agreements were signed.

Kemwater. Kemwater was developed energetically both through acquisitions and by establishing new companies. The aluminium sulphate business of Krems Chemie was acquired in Austria. In Germany, the ferrichloride production of Solvay S.A., which has a capacity of 60,000 t/a, was purchased at the end of the year. In the Czech Re-

Kemira Chemicals hydrogen peroxide plant



Original source: Bleaching Chemicals

public, Kemira Chemicals purchased ProChemie s.r.o., a company that manufactures aluminium sulphate.

These acquisitions will strengthen Kemwater's market position both in the German-speaking areas of Europe and in Eastern Europe.

Outside Europe, two new joint ventures were established, Kemwater Diper A.S. (51%) in Turkey and Kemwater de México S.A. (51%) in Mexico. Both companies will begin manufacturing water chemicals for the treatment of drinking and waste water. Expansion investments are under way in Great Britain, the Netherlands, Poland, Brazil, the Philippines and Algeria.

The large outlays on development increased fixed costs but did not yet generate corresponding income. Kemwater will push ahead with its rapid expansion in the years ahead.

Industrial Chemicals. The most important development effort for Industrial Chemicals during the past year was the development of ECOX percarbonate grades as well as fine-tuning production. The work has brought good results and the product has been well received. A production line that manufactures granulated calcium chloride was completed towards the end of the year.

Process development on food-quality phosphoric acid has been seen to completion with good results.

Each year Kemira Chemicals spends about 2.5% of its net sales on research and development. The main focuses of the research are speciality chemicals for the paper industry and water treatment. (Photograph: Svenna Martens)

PERSONNEL

Kemira Chemicals' payroll at the end of the year was 3,066 people, an increase of 138 employees compared with the previous year. The increase was largely attributable to acquisitions. Staffing levels at the established units did not rise.

RESEARCH AND DEVELOPMENT

Research and development are the key condition for the continuous growth of Kemira Chemicals. Research is the focus of a long-term effort, with the accent on the projects of Pulp & Paper Chemicals and Kemwater. Each year Kemira Chemicals spends about 2.5% of its net sales on research and development. As a ratio of net sales, by far the largest outlays are made on speciality chemicals for the paper industry and by Kemira Fine Chemicals Oy.

Noteworthy research results are the recently started peracetic acid and percarbonate processes, the heavy metal-free Ferix CL-3 water treatment chemical and food-quality phosphoric acid.

PREPARATION FOR THE YEAR 2000

Kemira Chemicals has taken precautions in good time to counter the effects of the year 2000 on its computer software, including the process automation systems at its production plants. All the major information systems, including sales, order, delivery and production control systems as well as finance and personnel administration applications were upgraded during installation of the integrated SAP R/3 system. The project involved unifying and modernizing information system applications, whilst eliminating the snags which the year 2000 may bring. The upgrading work was seen to completion in the early part of 1999.

The control and regulation systems of all the processes at production plants have been tested in cooperation with suppliers of systems and equipment. During the tests, software update plans have been prepared with the assistance of equipment suppliers. Part of the systems will be modernized. The essential updates and upgrading work will be carried out by August. The cost is estimated at about FIM 10 million.

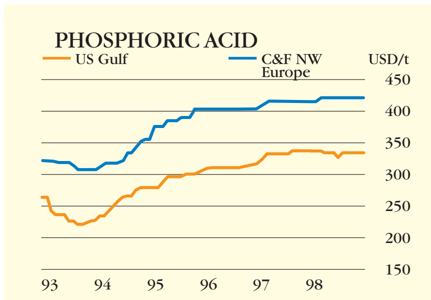
OUTLOOK FOR THE FUTURE

The economic outlook for 1999 is very contradictory. The slowdown in the market that set in towards the end of 1998 will probably continue into the first part of 1999. There are nevertheless clear differences from product to product. For example, business cycles scarcely have any impact on the sale of water treatment products. The acquisitions made during the year under review will have a positive effect on sales and earnings. Demand for phosphoric acid is expected to remain stable. The agreements which Kemira Fine Chemicals has already made will spur the company to rapid growth.

In the years ahead, Kemira Chemicals will continue to develop all its units, with the main emphasis on Kemwater's new projects, the development of speciality chemicals for the paper industry and actions to ensure the growth of Kemira Fine Chemicals.

Kemira Chemicals is drafting a new strategic process that aims to generate new business and growth. The process is based on the core competence philosophy and wide-ranging employment of the company's know-how in development work. New growth will be sought in three synergy areas that are connected with present operations: identifying new potential involving water, recycling and environmental chemicals.

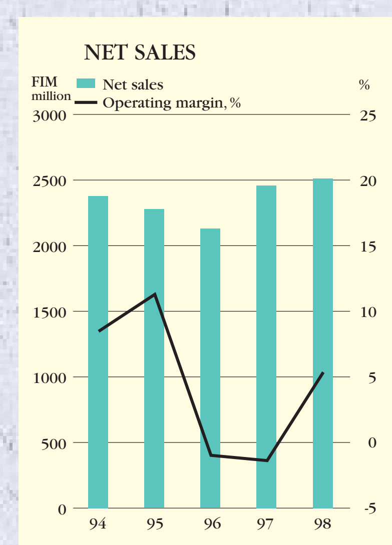
Kemira Chemicals' result in 1999 is expected to remain good.

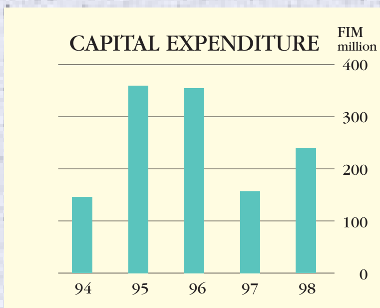


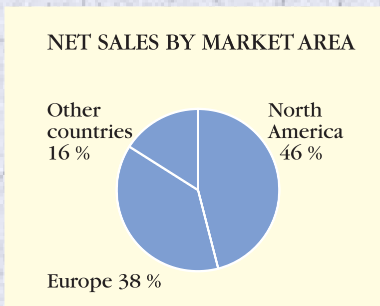
Source: Fertilizer Week

KEMIRA PIGMENTS

Paper is one of the most important application areas for titanium dioxide pigments. High quality printing papers and laminated papers contain large quantities of it. (Photograph: Lehtikuva)







NET SALES AND RESULT

Kemira Pigments had net sales of FIM 2,514 million, up 3% on the previous year (2,451 million). Average selling prices rose by about 17% compared with the previous year but sales volumes were lower owing to smaller initial stocks, production problems and a weakening in the market situation in the latter months of the year. Operating income improved markedly on the previous year and was FIM 132 million (a loss of 35 million in 1997).

MARKET SITUATION

The strong growth in demand for titanium dioxide pigment that got started in 1997 slacked off during 1998. With the exception of grades used in paper manufacture, demand in North America was relatively good, but in Europe and Latin America sales slowed down markedly in the last months of the year. Demand in Asia was weak throughout the year.

The market was affected by the strong consolidation that took place

MANAGEMENT

President: Risto Keränen
Sales & Marketing: Matti Lapinleimu
Savannah plant: G.L. Roberts, III
Pori plant: Eero Sipilä
Rotterdam plant: Philip Bouman

KEMIRA PIGMENTS

	1998 MEUR	1998 MFIM	1997 MFIM	1996 MFIM	1995 MFIM	1994 MFIM
Net sales	**423**	**2,514**	2,451	2,108	2,279	2,379
Cost of sales	**-356**	**-2,119**	-2,225	-1,889	-1,818	-1,981
Depreciation	**-44**	**-263**	-261	-240	-206	-199
Operating income	**23**	**132**	-35	-21	255	199
Net financing expenses	**-19**	**-110**	-125	-111	-103	-95
Income before extraordianry items	**4**	**22**	-160	-132	152	104
Capital invested (average)	**385**	**2,291**	2,376	2,445	2,333	2,453
Return on capital invested %	**6**	**6**	-2	-1	11	10
Capital expenditure	**40**	**240**	158	358	360	146
Personnel (average)	**1,794**	**1,794**	1,851	1,939	1,971	1,971

Risto Keränen

within the industry. Millennium Inorganic Chemicals of the USA acquired Rhône-Poulenc's production plants in France as well as Tibras' plant in Brazil. Kerr-McGee Chemicals, also an American company, bought Bayer's titanium dioxide plants in Germany. The industry's largest producer, DuPont of the USA, was set to acquire Tioxide's production plants located outside North America, but the memorandum of intent was cancelled when approval of the deal failed to come through from the United States competition authorities (FTC). This deal had already been announced in July 1997.

Raw materials for the chloride process have been in good supply and prices are heading downward slightly, though they are still high. The market situation for ilmenite, which is used as a raw material in the sulphate process, has tightened up somewhat owing to the production problems in Australia and this is also reflected in prices.

The Rotterdam unit is currently carrying out a project to improve the plant's efficiency and on-line time. At the plants in Pori and Savannah, too, cost-effectiveness is being boosted in order to ensure the company's competitiveness. (Photograph: Studio Titi)

BUSINESS DEVELOPMENT

Kemira Pigments' four main sales areas are North America, Europe, Latin America and the Far East. The sales and marketing organizations were split into separate units in order to strengthen the marketing function. A new sales company was set up in Chile to handle sales in Latin America.

The debottlenecking project that was started at the plant in Pori, Finland, in 1997 moved ahead and will be completed according to plan by the end of 1999. The project will increase Pori's capacity by 20,000 t, bringing the total production capacity of Kemira Pigments up to 321,000 t/a.

The use of energy is also being made more efficient at the Pori plant. The objective is to reduce energy consumption by 20% per tonne of product by the end of the year 2000.

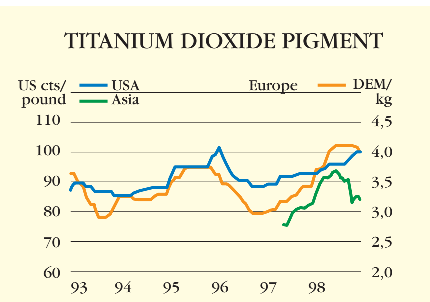
The Special Products unit will double its manufacturing capacity for speciality titanium dioxide products in Pori. Notably, UV-Titan products are microfine titanium dioxide products that are used in cosmetics, automotive paints and special plastics applications. FINNTi products are mainly used in the manufacture of coloured pigments and catalysts. By means of expansion investments, Kemira Pigments will strengthen its position in these growing product areas.

In the Netherlands, the efficiency of the Rotterdam unit will be improved by building a third chlorinator for the front end of the process line. The investment will make it possible to expand the use of alternative ores and to improve the unit's on-line time. The project will be completed in the summer 2000.

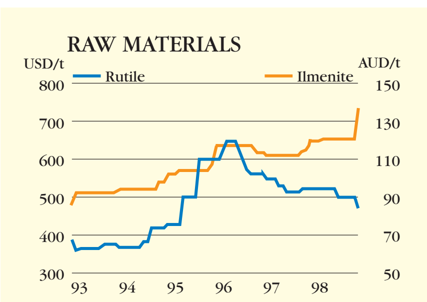
A programme aiming at modernizing the administrative information systems is in progress at all the Kemira Pigments units. The present systems that are in use at the different companies will be replaced with SAP R/3 software. The new operations control system will cover most of Kemira Pigments' functions in Pori, Savannah and Rotterdam as well as the sales offices in different parts of the world. It will improve customer service and enhance the entire company's operations.

Kemira Pigments has made a determined effort to introduce the euro widely in both its sales and purchasing activities. It is believed that more than 60% of the invoicing for Pori and Rotterdam will be in euro amounts in 1999. Introduction of the euro has clarified pricing in Europe.

The programmes aiming to step up



Source: ICIS–LOR



Source: Industrial Minerals

efficiency at the Pori and Rotterdam sites are progressing according to plan. The programmes aim to achieve a significant increase in cost-effectiveness, thus ensuring the company's competitiveness. In Savannah, too, a cost-efficiency programme has got started with the aim of reaching annual savings of USD 20 million in costs as from the beginning of 2001.

PERSONNEL

Kemira Pigments' payroll diminished by 43 employees and was 1,755 people at the end of the year. The decrease was the greatest in Pori.

RESEARCH AND DEVELOPMENT

The development of titanium dioxide products continued ahead energetically in all the main product areas. Two new products for the plastics industry were brought out on the market, thus strengthening Kemira Pigments' market share in the field that has the fastest growth in the use of titanium dioxide. In addition, a new product for laminated papers was unveiled. Development work of the Speciality Product business unit concentrated on cosmetics grades and titanium chemicals.

Towards the end of last year, Kemira Pigments' research and development activities were organized into a group-wide global function. The research centres are located in Pori and Savannah. Kemira Pigments spends an annual 2.2% of net sales on R&D.

The ultrafine titanium dioxide pigment used in sunscreen creams reflects harmful radiation away from the skin. Ultrafine UV-Titan products are a special field of Kemira Pigments. Soon production capacity will be doubled. Apart from cosmetics, the products have a variety of other uses, such as in automotive paints. (Photograph: Lehtikuva)

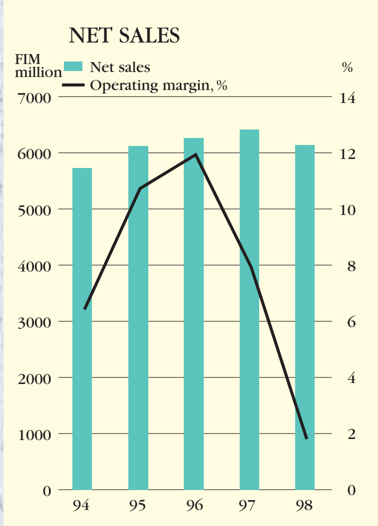
YEAR 2000

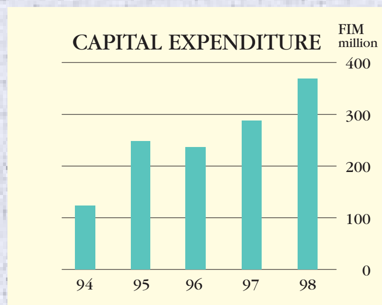
Kemira Pigments has prepared for year 2000 problems by surveying the capabilities of its information, process control and other systems at all its sites.

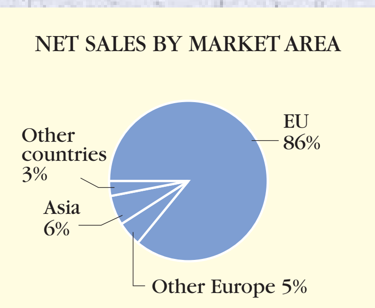
At the plant in Savannah, USA, modernization of the control systems for the main processes was started in 1997. Rotterdam is also putting a new process control system into operation. These measures will ensure the compatibility of the systems at the turn of the millennium and will furthermore improve the efficiency and safety of operations. The control systems at Pori were already upgraded earlier. The overhauled systems will be completed before the end of October and will ensure a flexible transition to the year 2000. The projects are basically improvement investments which nevertheless are considered as an expense incurred in changing to the new millennium because preparation for problems that may be encountered at the turn of the year have affected the implementation schedule of projects. The total value of the Year 2000 projects is about FIM 48 million. In addition, Kemira Pigments' new operations control system, the SAP R/3, will ensure the compatibility of production, marketing and financial systems and their proper functioning as we move into the new year.

OUTLOOK FOR THE FUTURE

It is believed that the demand for titanium dioxide pigment will remain roughly at last year's level. The price level is also expected to remain at the level of 1998. The present price level does not support capital expenditures on new production capacity. Producers of the main raw materials are increasing their production capacity, but major changes in prices are nevertheless not expected during 1999. Kemira Pigments' financial performance is expected to remain at the previous year's level.







MANAGEMENT

President: Tauno Pihlava
Exeutive Vice President:
Rauno Valkonen
Agriculture: Timo Lainto
Horticulture: Henry Cambier
Process Chemicals: Henry Cambier
Agro Ventures: Frits Visser

Tauno Pihlava

KEMIRA AGRO

NET SALES AND RESULT

Kemira Agro's net sales were down by 4% to FIM 6,126 million (6,414 million in 1997). The trend was due to the fact that the price level and sales volumes in all market areas were lower than they were a year earlier. Production was lower than in 1997, partly because of shutdowns for plant investments and partly due to technical disturbances. Operating income fell significantly and was FIM 111 million (505 million).

MARKETS

Agriculture. The unit's net sales declined by 4% on the previous year and profitability fell sharply. Agriculture is the largest of Kemira Agro's four strategic business units.

In 1998, worldwide consumption of agricultural nutrients declined by 1.8% for nitrogen and grew by 6.0% for both phosphorus and potassium. World grain harvests increased slightly, but there was great regional variation. Harvests were poorer in a number of countries, particularly in the territory of the former Soviet Union, but China too suffered large harvest losses due to floods.

Sales in Europe were up somewhat on the previous year, but overseas exports fell markedly from the record figures that were reported a year ago. The decision taken by China in the spring 1997 to ban imports of urea was also in force during the year under review. Accordingly, because of the curtailment in the volumes of these export markets, the prices of urea and ammonia continued to fall throughout the year, also depressing prices of other nitrogen products. Prices of phosphorus and potassium held steady.

Strawberry plants receive doses of fertilizer along with the irrigation water, and a protective covering sewn from teak leaves prevents the moisture from evaporating, whilst checking the growth of weeds. Irrigation fertilizer is gaining wide acceptance in countries in the temperate and tropic zone, where water is often in scarce supply. (Photograph: Juhani Uoti)

In Europe, the prices of nitrogen products followed the general trend and were down on the previous year by an average of 10% on the continent and by 15% in Great Britain. Furthermore, prices of NPK fertilizers in Great Britain and on the overseas export market declined by an average of 10%, whereas on the continent they were unchanged.

Russia's weakened economy exerted a drag on the marketing of agricultural products in the Baltic countries

KEMIRA AGRO

	1998 MEUR	**1998 MFIM**	1997 MFIM	1996 MFIM	1995 MFIM	1994 MFIM
Net sales	**1,030**	**6,126**	6,414	6,278	6,123	5,736
Cost of sales	**-954**	**-5,675**	-5,591	-5,179	-5,044	-4,980
Depreciation	**-57**	**-340**	-318	-353	-424	-388
Operating income	**19**	**111**	505	746	655	368
Net financing expenses	**-17**	**-98**	-123	-136	-160	-228
Income before extraordinary items	**2**	**13**	382	610	495	140
Capital invested (average)	**645**	**3,835**	3,582	3,537	3,877	4,672
Return on capital invested %	**5**	**5**	14	21	18	9
Capital expenditure	**62**	**369**	288	236	249	123
Personnel (average)	**3,071**	**3,071**	3,117	3,415	3,475	3,648

Kemira Agro's outlays on research and development are among the highest of all fertilizer producers. Kemira Agro wants its products to meet the developing needs of customers and the environment. (Photograph: Vuokko Puranen)

and Eastern Europe, but also in Western Europe. The good harvests in Western Europe affected the decision by the EU Commission to raise the set aside acreage for this year from 5% to 10%.

Horticulture. Net sales were up 20% and profitability remained at the previous year's level.

Demand for horticultural products continued to grow, particularly in areas where fertilizers are dosed by dissolving them in irrigation water. In a number of countries in the temperate and tropical region, the mounting water shortage is expected to make this trend more pronounced.

The price level in the horticultural product sector was fairly stable and the fall in the price of nitrogen was felt only marginally in high-nitrogen grades.

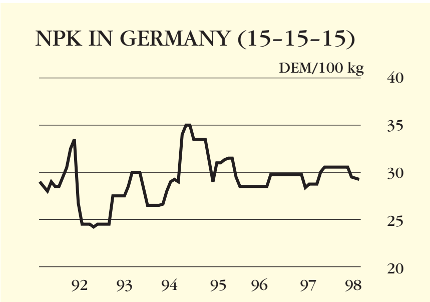
Process Chemicals. The unit's net sales held steady. Kemira Agro's process chemicals are mainly based on urea and ammonia, and the fall in prices in the fertilizer sector also affected the profitability of process chemicals. On the other hand, the price level of soluble nutrient-based products used in soil decontamination remained stable.

The volume of carbon dioxide sales on the UK market rose significantly, by 72%, thanks to the good growth in demand for the food-quality grade.

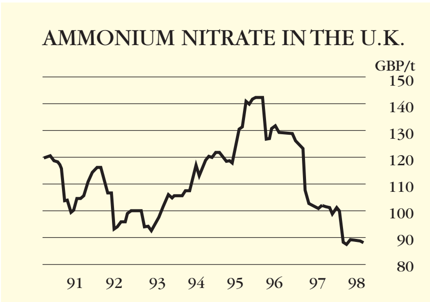
BUSINESS DEVELOPMENT

Agriculture. Major capital expenditures were made at Agro's production plants during the past year. The older fertilizer line in Uusikaupunki, Finland, was completely rebuilt, with the exception of the reactors. The new plant went into operation after a 1.5 month shutdown for making utility connections. The reactor system in Fredericia, Denmark, was modernized. The investment was completed towards the end of the year.

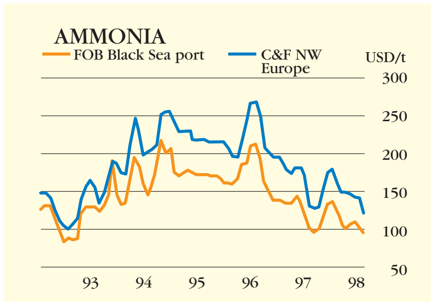
The fertilizer business expanded when the Kemira-Lifosa joint venture started up in Lithuania in the early autumn. The production plant has a ca-



Source: Fertecon



Source: Farm Brief



Source: Fertecon

The older production line at the Uusikaupunki fertilizer plant was rebuilt almost entirely, greatly improving the flexibility and efficiency of production. (Photograph: Vuokko Puranen)

pacity of 200,000 t/a. The NPK projects in the Far East continued according to plan and the plants are expected to start up in Malaysia in mid 1999 and in China during 2000. Both units will have an output of 200,000 t/a.

The LORIS and Kemistar systems that are well known on the European market will be developed further during the current year and will make possible the use of customer-specific, satellite-controlled precision farming.

Horticulture. The drier for the potassium nitrate process in Fredericia was rebuilt towards the end of the year, providing a considerable improvement in quality and boosting capacity.

A feasibility project that is being realized jointly with Arab Potash Company and concerns the building of a potassium nitrate plant in Jordan is continuing with the aim of starting the plant up during 2000. The product palette of water-soluble fertilizers and the distribution organization will be developed further to be in line with demand and the needs of capital expenditure projects that will soon be started. New direct growth will be created by way of the organic-mineral and slow-release product families.

Process Chemicals. In addition to its present customer base, the unit is seeking growth from business involving both water and soil decontamination. Nutrient solutions from Fertigro production are used as products for this purpose.

Ventures. The unit concentrates on exploiting Kemira's patented ion exchange technology. The business unit has played a decisive part in developing the technology for the project in Jordan. A new future development project that has been launched is the "Water in agriculture" initiative, which aims at creating new business in the area of irrigation nutrients and systems.

Within recycling, the focus in coming years will be on preventing ammonia discharges from manure as well as on recycling potassium from processed plant wastes. A new research thrust is a cost-efficient melamine process.

PERSONNEL

During the current year Kemira Agro will continue going over to a process organization. The new organization is expected to increase the entire personnel's participation and assumption of responsibility and to increase their proactiveness in a fast-changing business environment.

The payroll at the end of the year was 2,948 employees (2,995).

YEAR 2000

During 1998 Kemira Agro was running two projects aiming at modernizing its basic information systems. A new system making possible customer-tailored service was introduced in Finland. In the Benelux area, installation of a SAP R/3 system that will improve operational efficiency and customer service moved ahead according to schedule and the first modules were put into use in January 1999. The entire project is expected to last up to March 2000, by which date Denmark will be tied into the same system.

These two projects will also solve the year 2000 problem in respect of the ageing systems they replace. Apart from these measures, in the first half of 1998 Kemira Agro carried out an analysis of all the possible problem areas within administrative, materials handling, production and marketing systems which might be affected by the transition to the year 2000. The potential problems which the analysis pointed up will be resolved by the summer 1999 through an investment programme costing about FIM 20 million. The investment programme also includes some "quick fix" back-up solutions for the most critical areas in case any of the extensive system projects do not progress as planned originally.

RESEARCH AND DEVELOPMENT

Kemira Agro spent about 1% of its net sales on research and development. It ranks among the fertilizer producers who make the highest outlays on R&D. The task of research and development is to ensure the quality and performance of Agro's products so that they meet the developing needs of customers and the environment. A further aim is to develop new products and technologies to ensure the company's growth and profitability.

OUTLOOK FOR THE FUTURE

Kemira Agro's main business, Agriculture, is in the midst of a downswing due to the price of nitrogen products. Clear signs of an easing up of the situation by way of rationalization in the industry or, for example, growth in demand in the agricultural sector in Russia and China are not immediately on the horizon. The horticultural fertilizer market and process chemicals appear to be heading in a positive direction.

The increases in earnings brought by new investments will be felt to the full extent mainly in 2000. At the beginning of 1999, Kemira Agro has launched a development programme that will yield a full FIM 200 million improvement in earnings beginning in 2001. The result for 1999 is estimated to be at the same level as it was in the report year.

TIKKURILA

Tikkurila Paints has left its mark on the street ambience in the Old Town precinct of Gdansk. Tikkurila started the manufacture of paints in Poland in the autumn 1998. (Photograph: Tikkurila Paints archives)

NET SALES AND RESULT

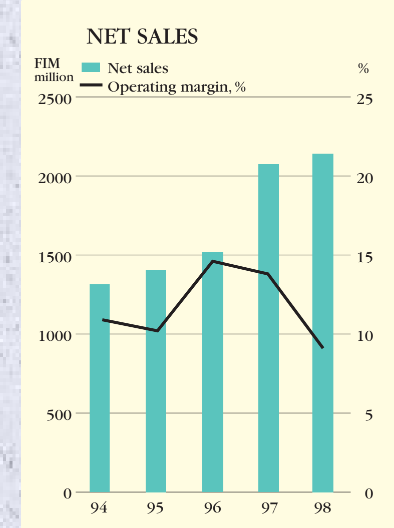
Tikkurila had net sales in 1998 of FIM 2,143 million (2,075 million in 1997). Operations outside Finland accounted for 75% of Tikkurila's net sales.

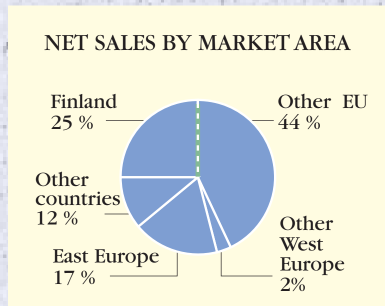
Earnings did not reach the record level of 1997 but were still good. Operating income was FIM 194 million (287 million) and 9% of net sales. Operating income was reduced primarily by the substantial decrease in exports to the East and by the non-recurring costs of launching new systems. Concurrently, Tikkurila made big outlays on marketing and product development aimed at new markets that are expected to yield high earnings in future years.

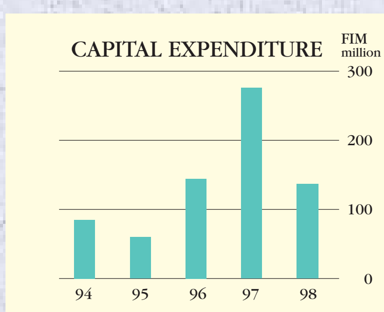
Tikkurila's operations are handled by three units: Tikkurila Paints Oy markets decorative paints, Tikkurila Coatings Oy industrial coatings and Tikkurila CPS Oy tinting systems. The company has production operations in 14 countries.

TIKKURILA

	1998 MEUR	1998 MFIM	1997 MFIM	1996 MFIM	1995 MFIM	1994 MFIM
Net sales	**361**	**2,143**	2,075	1,517	1,408	1,315
Cost of sales	**-312**	**-1,853**	-1,708	-1,233	-1,197	-1,114
Depreciation	**-16**	**-96**	-80	-62	-67	-58
Operating income	**33**	**194**	287	222	144	143
Net financing expenses	**-5**	**-27**	-27	-23	-26	-35
Income before extraordinary items	**28**	**167**	260	199	118	108
Capital invested (average)	**211**	**1,254**	1,077	1,013	1,022	1,089
Return on capital invested %	**16**	**16**	27	22	15	13
Capital expenditure	**23**	**136**	277	146	60	85
Personnel (average)	**2,214**	**2,214**	1,902	1,520	1,585	1,590







MANAGEMENT

Tikkurila Oy
President: Raimo Piironen

Tikkurila Coatings Oy
President: Tapio Käär

Tikkurila CPS Oy
President: Raimo Piironen
Vice President: Vesa Aulanko

Tikkurila Paints Oy
President: Visa Pekkarinen

Raimo Piironen

The Kiasma Museum of Contemporary Art in Helsinki, designed by architect Steven Holl, won an award for its technically challenging design and the demanding implementation of its concrete structures. The dominant colour in the interior areas is white. (Photograph: Peter Forsgård)

MARKET SITUATION

Tikkurila Paints. The unit manufactures paint products for consumers and professional painters and is seeking market leadership in Northern and Eastern Europe. Production plants are located in Finland, Estonia, Latvia, Russia, Poland and Italy. In addition, the unit has sales companies in Sweden, Lithuania and Hungary.

The economic crisis in Russia had a major impact on Tikkurila Paints' total sales, causing a substantial decline in deliveries to Russia. Baltic Color, which operates in the Baltic countries, again marked a year of growth in 1998, though the situation in Russia did affect its net sales both on the domestic market and within exports. AS Baltic Color in Estonia became the first Baltic company to receive the ISO 14001 environmental certificate.

In Finland, sales of decorative paints were at the previous year's level. Construction has picked up and sales of decorative paints are growing, but due to an exceptionally rainy summer, the overall market trend did not meet expectations. The launch of the new Monicolor Symphony colour processing system was completed successfully on the Finnish market. However, the total costs of the launch had a significant one-off weakening effect on the earnings reported by Tikkurila Paints.

Just like in Finland, in Sweden too the weather is of great importance for the decorative paint market, especially in the summer. Dickursby Färg AB succeeded in increasing its market share by lining up new dealers.

A joint venture was established in Poland to manufacture consumer paints and industrial coatings. Production got started in the autumn. Sales in Hungary continued their upward trend, though the network of about 100 dealers remained unchanged.

In Russia, production investments at the plant in St Petersburg continued and the product range was expanded to include alkyd paints. Operations in Russia will be developed over the long term, making use of local resources.

In Modena, Italy, Spetra S.r.L., a manufacturer of special effects coatings, was transferred from Tikkurila CPS and made a part of the Tikkurila Paints organization.

Tikkurila Coatings. The unit manufactures paints and coatings for industry. Its market area is Europe. Production plants are located in Finland, Great Britain, the Netherlands and Poland. The unit has sales companies in Sweden, Ireland, Estonia, Russia and Hungary.

Sales of industrial coatings developed well in Sweden, eastern Central Europe and Russia. The crisis in Russia had a lesser effect on the demand for industrial coatings than it did on consumer paints.

In the Baltic countries, Tikkurila Coatings further strengthened its already strong position within the furniture and joinery industry. Sales of products to the metal industry, both directly and through distributors, increased significantly and boosted the unit's market share.

In the Netherlands, Kemira Color strengthened its position in its main area of operations: can coatings, paints for vehicles and transport equipment (ACE) as well as certain speciality areas.

The product areas of Kemira Coatings in Great Britain – heavy-duty coatings and ACE – developed favourably and sales via its own dealers increased.

In Finland, the industrial coatings market grew only somewhat, but Tikkurila Coatings held on to its strong market position.

Tikkurila Coatings launched its Temaspeed Colour Service, a concept that is targeted at dealers and covers topcoats and primers, thinners and other Tikkurila products for the metal and woodworking industry, engineering works, industrial painting shops and industrial maintenance. The service is built around new colourants that have been especially developed for the tinting of industrial coatings.

The manufacture of industrial coatings got started in Poland in the autumn.

Tikkurila CPS. Tikkurila CPS is the world's leading supplier of advanced tinting systems and its products are mainly delivered to the paint industry on all continents. The product range includes all the components of colour processing systems: colourants, machines, software and tools for colour marketing. The unit has production plants in Australia, Brazil, Finland, India, Italy, the Netherlands, South Africa,

CPS APPLICATIONS

– Paint
– Leather
– Textile
– Concrete
– PVC

the United States and Uruguay as well as sales units in China (Hong Kong and Shenyang). Production in Singapore will get started during 1999.

In 1998, Tikkurila CPS increased its net sales further, though at a slower rate than in the previous year. Modular tinting systems and system components such as software were brought out on the market. This will enable Tikkurila to take a more flexible approach to local markets and customers' requirements during the commissioning of new tinting systems. Global service has gained in importance and the Tikkurila CPS organization was realigned in tune with new needs.

Corob's sales of tinting machines developed favourably not only in Europe but also in new market areas in North and South America as well as in Asia.

Despite the economic crisis in Asia, Tikkurila CPS believes that the demand for colour processing systems will grow strongly within the paint industry in the area. Among the ways it demonstrated this confidence was by investing in production as well as the development of its sales and service network in Asia. The colourant plant in Singapore and the Corob tinting machine factory in India are Asia's first plants that manufacture the key elements of advanced colour processing systems.

BUSINESS DEVELOPMENT

Together with a Polish partner, Tikkurila Paints Oy and Tikkurila Coatings Oy established a joint venture in Szczecin, Poland. The company is named Tikkurila Baltcolor Sp. z o.o. and its paint production got started during the autumn. Tikkurila Paints began preparations for starting paint production in Moscow, Russia, in 1999.

Tikkurila CPS established a representative office in China and a subsidiary, Tikkurila CPS (SEA) Pte Ltd in Singapore. The subsidiary's mission is the marketing of advanced colour processing systems, technical support that is offered to customers, colour marketing support and the manufacture of colourants.

Tikkurila CPS and Swisslog of Switzerland established a company named Corob, which manufactures tinting machines. The new company will make it possible to develop a comprehensive international servicing network for tinting customers as well as to offer more extensive materials handling lines connected with colour processing.

The extension and automation works at the tinting machine plant of Corob S.p.A. got started in Modena, Italy. The capital expenditure project will increase production capacity and improve Corob's price competitiveness in the tinting machine market. The Banco tinting machine, which is targeted at new markets, has been designed for mass production. This makes it an especially economical solution for customers.

Corob started the manufacture of tinting machines in Mumbai, India.

The extension to the Winter-Bouts B.V. plant in Sittard, the Netherlands, was completed and the plant is now the largest of Tikkurila CPS's units that produce colourants.

Tikkurila sold its share in McWhorter Technologies AB, a manufacturer of resins.

YEAR 2000

Tikkurila is carrying out studies and system upgrade projects to ensure a trouble-free transition to the year 2000. The system upgrades are mainly connected with the development of operations and business processes, but at the same time they replace old systems that would not be able to cope with the demands of the new millennium. The cost of the projects is a couple of million Finnish marks. The process control systems of Tikkurila's plant in Vantaa, Finland, will be renewed completely by the end of 1999.

PERSONNEL

The Tikkurila Group had a payroll of 2,182 employees at the end of 1998, or 288 people more than in the previous year. The number of employees working in Finland was 935.

RESEARCH AND DEVELOPMENT

The emphasis in product development work on decorative paints centred on new water-borne products for interior painting. The composition of products that were already on the market was changed by replacing the raw materials with substances that go easier on the environment or improve the application characteristics of the product.

The key tasks in product development for industrial coatings are connected with the development of water-based products that have a high solids content and are solvent-free as well as on the active dissemination of information on products and surface treatment methods whose use leads to a reduction in solvent emissions.

A product that was developed for the new markets in the United States and Asia is a tinting system for decorative paints which is called "Personal Tinting Solutions", and is tailored to the customer's every requirement. The system includes colourants, base paints, customized colour marketing materials as well as new colour management software.

In the tinting of industrial coatings, alternatives with a lower environmental impact, such as Temacolor Scala colourants, have gained a foothold. The new colourants meet the ever more stringent quality, environmental and occupational safety requirements for industrial surface treatment. The solvent content of the colourants has been lowered and the range of pigments has been improved. At the same time, implementation alternatives for different applications have been added to the system.

Tikkurila's research and development expenses amounted to 3.4% of net sales.

OUTLOOK FOR THE FUTURE

The demand for decorative paints correlates strongly with the general economic situation. Growth is expected both in already established markets and in those where development is just getting under way, but economic crises may slow down the trend. The uncertainty in Russia will continue on into 1999 and this will affect sales of decorative paints and the unit's earnings.

Within industrial surface treatment, Tikkurila's market position is strengthening further in selected areas thanks to strong product development and a comprehensive service network.

The tinting business will account for a growing share of Tikkurila's net sales. The fastest development will come in the Asian market, but North America, South America and Continental Europe also have good growth perspectives. The acquisitions and divestments carried out during 1998 together with the opening of new business sites will further strengthen Tikkurila's position as the world's leading supplier of advanced colour processing systems.

Tikkurila's good level of earnings is expected to continue in 1999.

KEMIRA METALKAT

In 1998 Kemira Metalkat reported the best earnings in its history. Net sales were up 16 % on the previous year and were FIM 178 million (154 million in 1997). Operating income was FIM 10 million (-4 million).

Net sales came primarily from the sale of catalytic converters to the automotive industry because the markets outside this area are still undeveloped. The greenhouse effect – the warming of the atmosphere – is a fact that will lead to a tightening up of emission standards and the emergence of new markets in both the industrialized and developing countries. This will call for continuous improvements in product development and, despite focusing, it will require not only product development but also outlays on marketing.

Capital expenditures, which amounted to FIM 8 million, were directed mainly at new products as well as at production and information technology.

The payroll in Finland at the end of the year was 180 employees. There were 28 people who were employed by subsidiaries outside Finland at the end of the year.

The current year has started off well and earnings are expected to remain at the level that has now been achieved.

In Kemira Metalkat's laboratory, tests are being carried out on an exhaust gas catalytic converter that is suitable for use in a vehicle that runs on two alternative fuels: natural gas and gasoline. (Photograph: Studio Karl Lahti)

KEMIRA SAFETY

The result for 1998 was good. Net sales were FIM 85 million, as against FIM 71 million a year ago. The growth in net sales came from volume growth in all three main product groups: protective masks, filters and battery-powered respiratory protective devices. The growth in exports to continental Europe continued ahead strongly for the second year running. Growth was brisk in Great Britain, France and Germany. Net sales were also up in Finland, though in Sweden they tapered off slightly. Operating income was FIM 7 million, compared with FIM 5 million a year earlier. FIM 6 million was spent on investments.

Net sales are expected to grow further and at a good clip in the large markets of Western Europe. Growth in market shares is also expected in Finland and elsewhere in Scandinavia.

Major capital expenditures went for new products and information technology. Towards the end of the past year, a new generation of power-assisted respirators, Proflow2, was rolled out, as was Promask, a new face-covering mask that is intended for demanding industrial use. Both products came out on the market in January 1999.

Kemira Safety's main market is still Western Europe, where its market share can be increased thanks to a strong product palette, short delivery times and delivery reliability. Earnings are expected to be at a good level in the current year, too.

Kemira Safety's newest product is the PROFLOW motorized respiratory protector, which is suited to demanding professional use in different branches of industry. The device offers outstanding reliability and safety. (Photograph: Studio Fotocenter)

KEMIRA OYJ

Kemira Oyj comprises Group management and administration as well as certain service functions. Kemira Oyj's net sales consist of the sale of electricity to the Group's companies in Finland and to outside companies. Net sales for 1998 were FIM 188 million (FIM 197 million), of which 60 % came from outside the Group.

The parent company's paramount task is the Group's strategic management. It sets objectives for the Group and the subsidiaries, defines operating principles and contributes to exploiting the Group's internal synergies. In addition to the energy business, the parent company handles the Group's financing and certain other headquarters service functions.

Kemira Oyj employed 130 people at the end of the year (137).

KEMIRA GROUP ENVIRONMENTAL REPORT

INTRODUCTION AND PURPOSE

Kemira's sixth environmental report summarizes the most important environmental developments at the Group companies in 1998. A more extensive, standalone report on products and the environment will be issued later this year.

This report follows the guidelines of the European Commission[1] and the recently renewed guidelines of the European chemical industry[2].

The environmental report deals with Kemira Group companies in line with the consolidation policy adopted in financial reporting.

SUMMARY

From an environmental point of view, there were no essential changes within operations in 1998. Important releases into the air decreased further. Waste generation also declined to some extent, while the overall picture for water pollution control was more static.

Capital expenditures on environmental protection decreased by 20%, with no big investment projects pending. A slight downturn in operating costs was also noted.

Environmental business continued to be a strong growth area for the Group companies. Sales of environment and safety-related products amounted to FIM 1,567 million, up 14% on the previous year.

There were no major industrial accidents or damage caused to the environment. However, one employee died accidentally at the Uusikaupunki plant in Finland.

Several new sites obtained ISO 14001 certification for their environmental management systems. Kemira Oyj achieved a golden award for good annual environmental reporting in Finland.

ENVIRONMENTAL POLICY AND MANAGEMENT SYSTEMS[3]

Work on the ISO 14001 environmental management system proceeded at several Group company sites. In Kemira Chemicals, the Vaasa plants obtained this certificate for the specialty paper chemicals activities at the site. The water chemicals business unit Kemwater got certificates for the coagulant plants in Fredriksstad, Norway, Kvarntorp, Sweden, and Rozenburg, the Netherlands. ISO 14001 is also in place at the newly acquired hydrogen peroxide plant in South Korea, as a part of the bigger industrial complex.

At Kemira Pigments, Pori, a safety management system was built and integrated into the existing quality system. Kemira Pigments B.V., Rotterdam, completed the Company Environmental Plan for the years 1998-2002.

Kemira Agro published a new challenging HSE policy in January 1999. The policy includes practical targets for improving safety.

At Tikkurila, AS Baltic Color in Tallinn obtained ISO 14001 certification, becoming the first producer in Estonia and the Baltic countries to gain this approval.

Group Administration issued extensive guidance on environmental procedures to be observed in making business acquisitions and investments and supported the companies with expert training in environmental management.

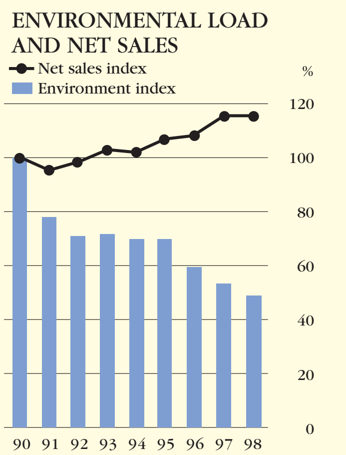
ENVIRONMENT PROTECTION AT THE PRODUCTION PLANTS

Kemira Chemicals. Kemira Kemi AB, Helsingborg, Sweden, made further technical improvements in dust filtration, waste management and noise abatement. Releases of sulphur dioxide from the sulphuric acid plant were the lowest ever. Emissions from the new sodium carbonate plant are low and well in compliance with permit conditions. A substantial amount of old waste sludge containing heavy metals was sent off for final off-site disposal. Surveys of the site's noise levels and energy efficiency were also completed.

The Kemwater business unit upgraded processes for the recycling of pickling liquor at Kvarntorp and Rozenburg in order to reduce waste and improve product quality. The newly acquired plant in Rheinberg, Germany, also processes secondary raw materials. Environmental process improvements were made at many plant units, for instance in reactor gas scrubbing and the reduction of tank venting releases.

1 "Communication on the Interpretation of Certain Articles in the Fourth and Seventh Accounting Directives". European Commission, 98/C 16/04.
2 CEFIC (European Chemical Industry Council): Health, Safety and Environmental Reporting Guidelines. November 1998.
3 Whilst Kemira Oyj is a strategically managed holding company, it does not set operative or quantitative environmental targets for the Group as a whole. Continuous changes in the business portfolio make the use of such targets extremely difficult. The Group environment policy, in place since 1994, places responsibility on companies and their sites for meeting minimum requirements and procedures.

Figure 1



The environment index consists of seven different releases and of non-hazardous waste.

Figure 2

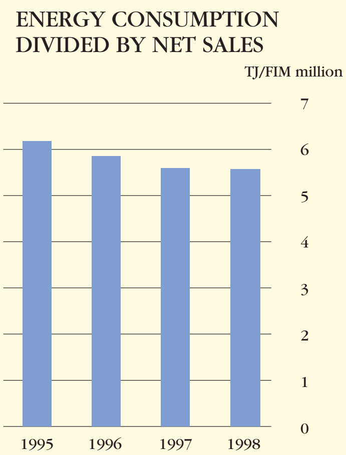
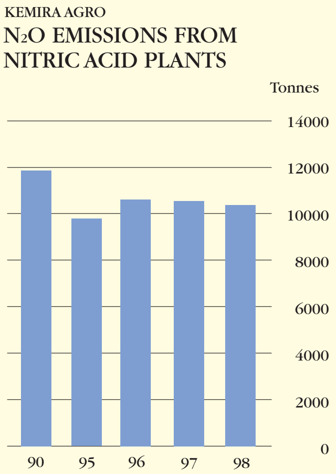


Figure 3



The data includes estimates.

Kemira Chemicals B.V., Rozenburg, was able to recycle all aluminum oxide waste from hydrogen peroxide production.

At the Oulu plants in Finland, environmental releases diminished further, and the demolition work was almost completed. A new waste management permit was obtained in January 1999 without essential changes in the operations.

As in the previous year, the releases from the Siilinjärvi plants and mine remained low in spite of record production. The water recycling system was upgraded to reduce nitrogen losses to water. Successful reduction of phosphorus in the water of the nearby small lake Oulunlampi was achieved by using coagulant treatment and gypsum to isolate phosphorus in the sediment. New ground water and leachate surveys were also conducted on the byproduct storage areas.

The Vaasa plants reduced solvent emissions by 25% as a result of their own development work. Sources of arsenic contamination in the cooling and ground waters were investigated.

The Kokkola plant renovated waste water settling ponds as well as related equipment for measuring and sampling waste water. In addition, an all-time-low level of sulphur releases was again achieved in sulphuric acid production.

Kemira Pigments. Kemira Pigments Inc., Savannah, upgraded oxidation gas scrubbers and investigated further opportunities in this field. A new waste water permit was issued but is not yet in force due to appeals concerning water temperature.

The Pori plant in Finland achieved its main environmental objective, environmentally harmless waste water. The new waste water neutralization plant has been in operation without any problems. As a consequence, the Pori plant is now excluded from the authorities' hot spot list of the biggest polluters of the Baltic Sea.

Major investments to up the production capacity at Pori include the expansion and automation of waste acid concentration. In air pollution control, digester gas scrubbing and dust separation of jet milling were further improved. Important investments are also going on to enhance the energy efficiency of the plants substantially. In addition, the number of lost-time accidents was halved.

Kemira Pigments B.V., Botlek, The Netherlands started to immobilize the plant's hazardous waste in May. As a result of this treatment, the final waste is classified as non-hazardous, and the disposal costs are substantially lower. Investigations and discussions with the authorities are continuing to enable recycling of the plant's solid wastes. The energy efficiency of the plant is now more than 20% better than in late 1980s, and the company became a signatory to a national energy efficiency programme. The lost-time incident record of the plant improved to a very low level.

Kemira Agro. At the Uusikaupunki plants in Finland, renovating the circulating water pond with bentonite isolation reduced nitrogen losses. A special sweeping truck was also put into operation to keep the site cleaner by collecting fertilizer spillages from the factory area. A new waste management permit was obtained, and renewal of the wastewater discharge permit is pending.

At the Harjavalta plants, odorous emissions of the composting storage were virtually eliminated in July. Nitrogen discharges to waste water diminished due to process improvements at the methylene urea plant. Further soil and ground water studies are going on locally together with Outokumpu, the neighboring base metal company, and the authorities.

At Kemira Danmark A/S, Fredericia, installation of NOx removal equipment to one nitric acid unit was completed at the end of the year. A new drier at the potassium nitrate plant reduces dust. Considerable energy savings were achieved with steam heating and reactor upgrading. A new integrated environmental permit was issued, but did not enter into force due to appeals primarily concerning noise abatement schedules. Production at Nørresundby was stopped in April 1998, and a soil survey was conducted at the site.

Kemira Ince in Chester, UK, reduced ammonia losses significantly by modifying condensate systems at the ammonium nitrate solutions plants. The number of lost time accidents dropped from 6 to 1, equalling the plant's best year ever.

Kemira S.A./N.V. started carbon dioxide recovery at the ammonia plant and replaced the de-NOx catalyst of one nitric acid unit with a more effective one. Studies on odorous emissions from ammonia production were performed, as well as additional soil and ground water surveys. Further soil sampling also took place also Wille-

Figure 4

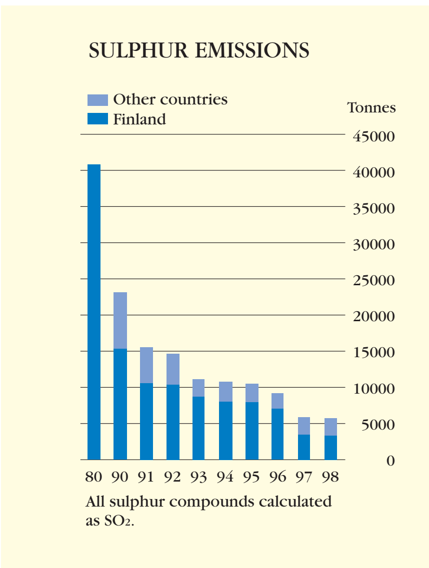


Figure 5

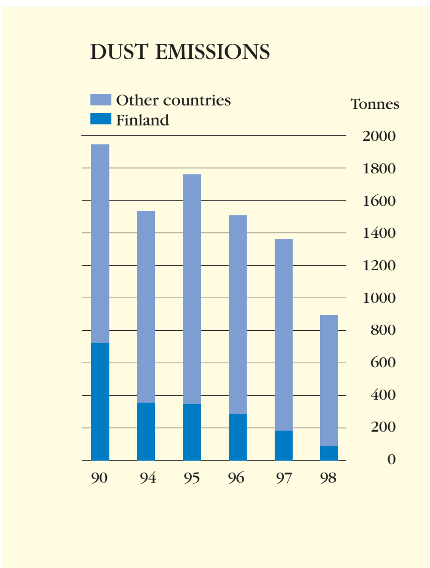
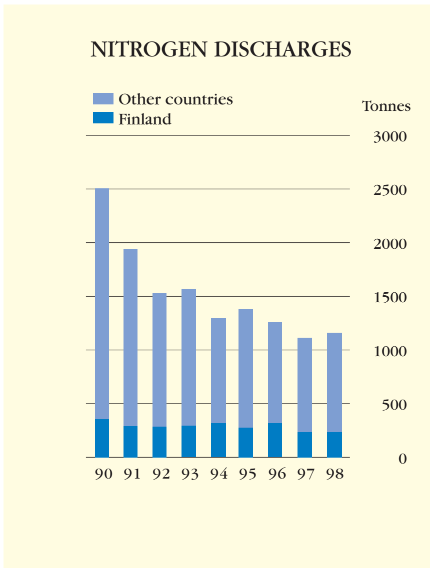


Figure 6



broek and Basècles, which are smaller sites.

Kemira Agro Pernis B.V., the Netherlands, proceeded with several R&D projects aiming at reducing gypsum discharges by means of recycling. A pilot-plant for producing ProGips by-product was started successfully. Commercial studies are also going on. Work connected with applications for new environmental permits was initiated.

Kemira Agro Rozenburg B.V. completed an investment of FIM 17 million to reduce the emissions of ammonia from the calcium ammonium nitrate plant by as much as 85%. An extensive study on reducing diffuse emissions of ammonia covered a total of 5,600 potential points at the site. Further investigations were required by the authorities to lower NOx emissions of the main sources at the site.

Tikkurila. Paint production started in Szczecin, Poland, and re-arrangements to concentrate production within two plants were completed in the UK. Some technological improvements on existing production were also made, but the releases and amounts of waste did not change noticeably.

PRODUCT DEVELOPMENT[4] AND ENVIRONMENT BUSINESS

A product stewardship[5] report, due to be published later this year, will contain information on the environmental life-cycles of Kemira's major products, as well as other topics related to the EHS management of the product chains at Group companies.

Environmental business is a well-established part of Kemira's activities and presently accounts for 11% of the Group's net sales. Sales of environment- and safety-related products[6] and services totalled FIM 1,567 million in 1998 (see Figure 12). Growth on the previous year was a strong 14%, coming mainly from increased sales of environmental chemicals (up 18%) and environmental equipment.

Acquisitions of two hydrogen peroxide plants in South Korea and Canada made Kemira Chemicals a global supplier of chlorine-free bleaching chemicals for the pulp and paper industry. At the same time, the global expansion of the Kemwater business unit continued with several acquisitions and new plant units. Plants for producing solid PAX products and Zeolit, an environmentally benign additive of PAX, also came on-stream.

Sales of environmental equipment had a year of solid growth as well. Sales of catalytic converters and personal protection devices increased by about 15% and 8%, respectively.

Sales of co-products and products developed from waste decreased by about 10%, mostly reflecting a downturn in certain co-products of titanium dioxide and phosphoric acid manufacturing. Opportunities to use the by-product phosphogypsum in the rehabilitation of eutrophicated lakes were investigated and discussed publicly in Finland, following successful pilot tests by other parties.

Kemira Agro's sales of industrial chemicals for air pollution control applications increased, as did the recovery of carbon dioxide. The Horticulture business unit boosted its sales of bio-control products.

A preliminary assessment was also made of the opportunities of using the recently developed slow-release forest vitalization products to increase the carbon sinks of forests, so as to combat climate change. This is also a profitable way of promoting the growth of renewable biomass sources, thus cutting the share of fossil fuels in energy production.

Environmental aspects continued to play a dominant role in the product development of Tikkurila's paints and coatings. Life cycle analysis and the company's own assessment methods were used to improve the scientific basis of product inter-comparisons in different applications.

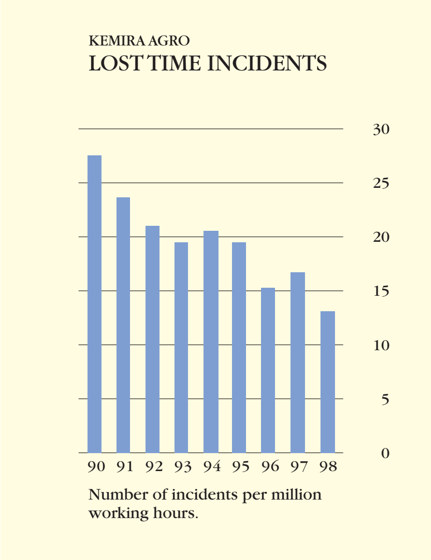
The markets reacted very positively to the new solvent-free colorants produced by Tikkurila CPS. These products are also free of alkylphenolethoxylates, a suspected group of hormone disrupting chemicals.

Tikkurila Paints developed new, safer and more environmentally benign alkyd coatings. In these products the solvent has been changed from aromatic to aliphatic.

Tikkurila Coatings' wood coating customers in particular have widely

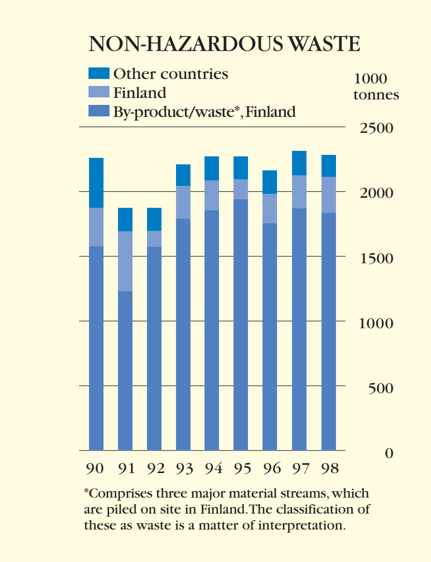
4 Apart from products discussed here, Kemira makes substantial outlays on environment-oriented R&D in all its businesses. It is impossible to calculate their amount exactly, and these figures are not included in the environmental costs given in this report.
5 Product Stewardship is a voluntary iniative of the chemical industry within the Responsible Care programme.
6 There is no internationally agreed definition of these products, which are commonly referred to as environmental business. (Sometimes the term environmental technology is used as a synonym, but it represents a much narrower branch of business).

Figure 7



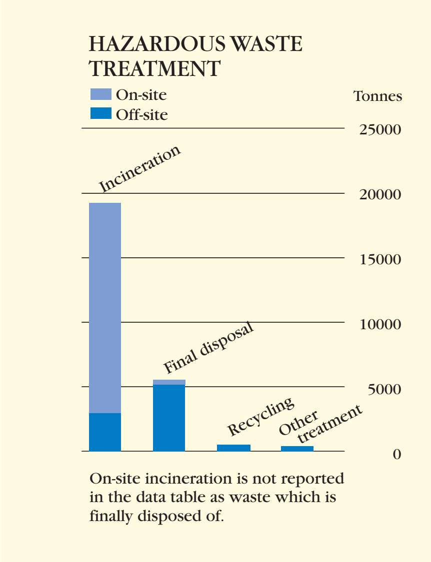
Number of incidents per million working hours.

Figure 8



*Comprises three major material streams, which are piled on site in Finland. The classification of these as waste is a matter of interpretation.

Figure 9



On-site incineration is not reported in the data table as waste which is finally disposed of.

adopted the water-borne, UV-hardening products. A change-over to these environmentally beneficial products is also gaining momentum in the metal coating industry.

DATA[7] ON ENVIRONMENTAL RELEASES, WASTE, ENERGY AND SAFETY

The Group's environmental reporting system was developed to respond to the technical changes proposed recently by CEFIC. However, not all of the redefinitions and new indicators could be incorporated in the site-level information systems.

There were no significant changes in the portfolio of the Group during 1998. The overall production volumes were rather stagnant. As before, all important sources of releases are included in environmental reporting[8]. Thus, the environmental data can be compared reasonably well to the figures of the previous year. A summary of annual trends can be found in the accompanying table and figures 1-12.

The total energy consumption decreased to some extent. The Group's eco-efficiency, if measured by energy use per net sales, has improved steadily by more than 10% over the past four years (Fig. 2).

Practically all important releases into the air diminished further. Even emissions of carbon dioxide, the most important greenhouse gas, were down due to reduced fuel use and extended recovery. The biggest incremental decreases were made in the emissions of dust. This can be attributed to improved gas cleaning particularly within Kemira Agro.

A minor reduction can also be observed in many of the discharges to water. Exceptions were nitrogen and chemical oxygen demand, with minor increases originating mainly in the fertilizer operations.

The generation of non-hazardous waste diminished slightly because of reduced stockpiling of byproducts in Finland. About 10% more hazardous waste was sent off for external final disposal and incineration. This is attributable to one major delivery in Helsingborg, Sweden (see above) and to the increased production of fine chemicals in Finland.

The effect of these changes is shown by the overall environmental index (Figure 1). The value of the index is four percentage points better than last year. Since 1990, environmental performance has improved by more than one half, measured as the average of percentage changes in eight individual releases. During this period the business volume of the Group has grown by 16%.

ENVIRONMENTAL INVESTMENTS AND OPERATING COSTS

The Group spent a total of FIM 89 million on environmental investments. The expenditures were thus almost 20% lower than in the previous year (Figure 10). Since there were no big pollution prevention or control projects pending, this capital was mainly used to upgrade the existing installations. Environmental investments represented about 6% of all investments made by the Group. At present, the Group is not aware of any material investment needs in the environmental sector.

Environmental operating costs declined slightly to FIM 290 (296) million. This decrease was the first observed since accounting for these costs was started in the 1980s. The drop was mainly due to lower production rates in some businesses and the reduction of exceptional waste disposal costs.

The costs of environmental protection thus totaled FIM 379 million, down 7% on the previous year. These costs correspond to 2.6% (2.8%) of Group net sales.

ENVIRONMENTAL RISKS, LIABILITIES AND LEGAL ISSUES

Trends in environmental legislation. Implementation and further development of the Kyoto agreement topped the international environmental agenda. For instance, in the European Union, national quotas or reduction targets were agreed upon. Whilst many details, like the roles of carbon sinks and flexibility mechanisms remain to be clarified, the implementation of this agreement will have wide-ranging impacts on the global chemical industry.

7 The data within this report have been compiled from statistics from many sites and sources. Whilst every effort has been made to ensure that the information is neither incomplete nor misleading, it cannot be considered as reliable as the financial data published in the annual report.
8 Excluding two hydrogen peroxide plants which were acquired by Kemira Chemicals Oy in the second half of 1998 and for which no reliable data are available for this period. Releases from these plants are not significant at the Group level and will be fully included in the reporting process as from 1999.
9 Nitrous oxide, N_2O, has a conversion factor of 310 when the actual emissions are calculated as carbon dioxide equivalents.

Figure 10

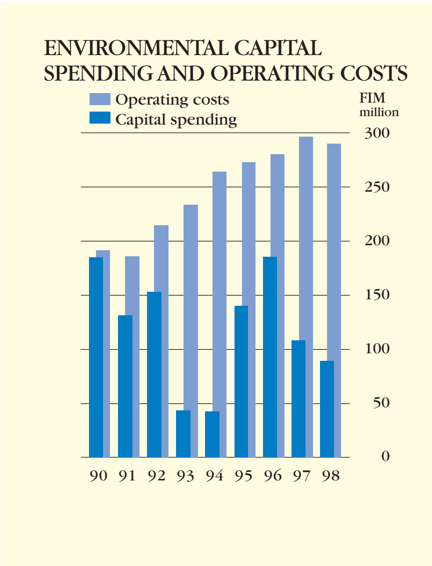


Figure 11

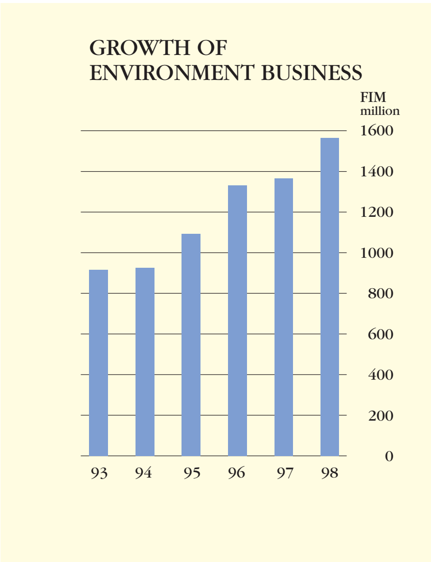
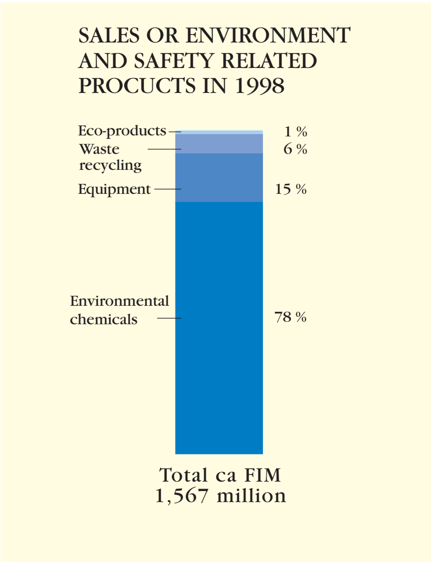


Figure 12



Kemira is not a particularly energy-intensive company, and climate change may also bring some business opportunities for the Group (see the paragraph on products). Most of the company's CO_2 emissions originate in the production of ammonia from natural gas in Western Europe. The recovery of CO_2 from this production has increased significantly. In Finland, Kemira's emissions of greenhouse gases have decreased by about 15% since 1990. The role of nitrous oxide from nitric acid production is significant, even if the actual amounts emitted are relatively low[9].

Of the new international environmental treaties, the protocols on heavy metals and persistent organic pollutants (POPs) are not very significant for Kemira's activities. Releases of heavy metals are already low, and the compounds listed as POP's are not manufactured or used by the company in any significant amounts.

Many environmental regulations or directives came into force or are in the pipeline in the countries where the Group operates. These deal, among other important topics, with the risks of existing chemicals, risks of hormone disrupting chemicals, public reporting on environmental issues, soil contamination, water policy (EU) and best available technology (EU). At present, the Group is not aware of material difficulties to cope with these forthcoming changes in the legal environment.

Compliance and permits. Overall compliance with site-level permit conditions can be characterized as good in 1998. A non-compliance situation was observed at three sites. The authorities are aware of these cases and corrective action has been initiated. A notice of violation regarding hazardous waste and waste water (mainly pH of waste water within the plant prior to treatment) was recently received by Kemira Pigments Inc., Savannah. The outcome of this case cannot yet be determined.

New environmental permits or the renewals of existing ones did not contain materially adverse requirements. At Kemira Agro Pernis B.V., the Netherlands, the ongoing permit procedure may have a significant negative effect on that particular business. The outcome of this case cannot yet be fully predicted, but management does not expect significant adverse financial effects for the Group as a whole. No significant difficulties were encountered in obtaining necessary permits to expand or to continue industrial operations.

Accidents, occasional releases and damages. The sites reported a number of industrial accidents causing minor damage to property and loss of profit. Of these, the following two cases can be mentioned as having caused some local concern:

- 25 June: A fire at one NPK fertilizer unit of Kemira Danmark A/S, the Fredericia plant in Denmark, causing smoke formation and damage to property.
- 11 August: Decomposition of fertilizer at the Kemira Agro Pernis B.V. plant in Rotterdam, the Netherlands, leading to formation of a brown nitrogen oxide plume and evacuation of workers in the neighbourhood.

The accidents did not cause environmental damage or other significant damage outside the plant areas. All the accidents have been subject to detailed internal and external expert investigations and appropriate insurance procedures.

Occasional spills and releases, restricted to the plant areas, were reported by a number of sites. At Siilinjärvi, Finland, sulphuric acid droplets caused some damage to cars parked close to the plants. The titanium dioxide plant of Kemira Pigments Inc. in Savannah, Georgia, reported twelve occasional releases of sulphuric acid or chlorine. The Group companies paid approximately FIM 1 million in compensation for environment-related damage, or as penalties.

The frequency of lost-time incidents was at the same level as in the previous year. However, one employee died accidentally on 30 September at the Kemira Agro Oy Uusikaupunki plant in Finland after falling from a ladder during maintenance work in the harbour. The Kemira Group deeply regrets this loss of life.

Environmental liabilities. The Group has assessed environmental risks and liabilities related to past operations at all important Group-owned properties. Several complementary investigations and surveys were conducted to clarify the situation further.

The acquisitions made during 1998 did not change environmental liabilities significantly. Detailed environmental due diligence projects were conducted in connection with these acquisitions.

At present, a requirement or commitment to undertake a limited clean-up exists at four sites, and appropriate provisions have been made. Remedial action or demolition were carried out at seven sites. The costs of current clean-up activities are reported as environmental operating costs (see above). The Group also continued to build up a reserve for unforeseen remediation costs.

Kemira Chemicals Oy continued investigations of the arsenic contamination in the sediment of the small nearby lake at the Vaasa plants in Finland. At the Kokkola plants, contamination of the surface layer of soil by mercury was observed in conjunction with demolition activities. Mercury is originally removed and recovered from the sulphuric acid plant's raw gas, coming from the neighbouring base metal company. Potential remedial activities are being planned in these cases, but the costs for Kemira cannot yet be estimated reasonably. However, they are not anticipated to be material for the Group as a whole.

Legal cases. There were no significant environmental legal cases pending against the Group companies.

Environmental taxes and fees. Environment-based taxes totaled FIM 69 million, when calculated on a net basis. This jump, by more than 20%, was caused by environment-driven taxation of energy in the Nordic countries. Proposed increases of environmental taxation are not expected to distort the competitive position of the Group.

ENVIRONMENTAL COMMUNICATION

Kemira Oyj received a golden award for good environmental reporting in Finland. In this comparison, Kemira was the best company that included environmental information in its annual report.

Kemira Agro published a customer-oriented report on farming, quality and the environment in Finland. The report is part of an extensive customer environmental advice programme, which deals with several aspects of sustainable farming.

The environmental EMAS-report of Tikkurila Oy proved to be a very useful source of information when advising customers and also in discussions with various stakeholders. The report assesses the health and environmental aspects of the entire life cycle of paint products.

ENVIRONMENTAL DATA FOR THE KEMIRA GROUP

	1990	1995	1996	1997	**1998**
Releases into water, tonnes					
Chemical Oxygen Demand (COD)[1]	..	10,192	9,776	5,616	**5,694**
Nitrogen (N)	2,500	1,374	1,258	1,121	**1,163**
Phosphorus (P)[2]	4,952	1,703	1,717	1,993	**1,933**
Suspended solids, 1,000 tonnes[2]	934	783	795	841	**799**
Metals (Hg+Cd+Pb+Cr+As)	49	26	21	12	**10**
Metals (Hg+Cd+Pb+Cr+As+Cu+Ni+Zn)				..	**48**
Releases into air, tonnes					
Particulates	1,950	1,762	1,504	1,364	**896**
Sulphur dioxide (SO_2)[3]	23,138	10,454	9,106	5,765	**5,630**
Nitrogen oxide (NO_2)[4]	8,546	6,814	6,345	6,202	**5,840**
Carbon dioxide (CO_2), 1,000 tonnes		3,540	3,445	3,508	**3,326**
Volatile organics (VOC)[5]	..	812	484	369	**374**
Volatile inorganics (VIC)[6]	..	4,503	4,305	3,508	**3,152**
Waste[7], tonnes					
Hazardous wastes, total	8,669	9,742	21,185	8,153*	**8,795**
– Off-site landfill	..	5,111	12,105	4,274	**5,117**
– Off-site incinertion	..	3,440	3,206	1,845	**2,926**
– On-site landfill	..	727	2,390	362	**375**
– other treatment	..	464	3,484	1,672	**377**
Non-hazardous, 1,000 tonnes	2,254	2,269	2,159	2,308	**2,278**
Natural resources					
Fuel consumption, TJ[8]		76,000	73,600	75,000	**74,400**
Purchased electricity, TJ		6,000	5,300	5,500	**5,700**
Total		82,000	78,900	80,500	**80,100**
Cooling water volume, million m^3, appr.		413	407	399	**393**
Waste water volume, million m^3, appr.		91	86	78	**82**
Safety					
Number of incidents[9] per million working hours		25.2*	21.2*	18.2*	**16.3**
Reference data, FIM million					
Group net sales	12,406	13,284	13,471	14,386	**14,345**
Environmental capital expenditure	185	140	186	110	**89**
Environmental operating costs	192	272	280	296	**290**
Total environmental costs, % of net sales	3.0	3.1	3.5	2.8	**2.6**

1 Estimate. In this case, mainly caused by inorganic discharges, and hence not a very relevant parameter for the Group.
2 Originates mostly from phosphogypsum.
3 All sulphur compounds calculated as SO_2.
4 Nitric oxide and nitrogen dioxide calculated as NO_2.
5 VOC is a sum of volatile organic compounds.
6 Sum of ammonia, hydrogen chloride and six other simple inorganic compounds, mostly ammonia in this case.
7 Waste as defined in EU legislation. Does not include mining by-products, on-site incineration, waste which is further processed into products at the sites, or sold as a co-product to external recycling. Figures are on wet basis.
8 Terajoules, or 10^{12} Joules. Includes fuel as a raw material.
9 Incidents causing an employee absence of at least one day.
* These figures have been changed because of a redefinition.

*

VERIFICATION STATEMENT

At the request of Kemira, we have reviewed the basis of the *Kemira Group Environmental Report 1998*. The report is the responsibility of and has been approved by the Board of Directors of Kemira Oyj. The inherent limitations of completeness and the accuracy of the data are set out in the report.

Our review has consisted of the following procedures:
- making enquiries of management responsible for compiling the report;
- an examination of relevant supporting information;
- review in more detail of the systems for gathering and reporting environmental data at operating level at one site outside Finland and one site in Finland, selected by us.

Based on our review we are assured that:
- the statements made in the report are supported by underlying information;
- the data has been properly collated from information provided by the sites;
- for the two sites visited, data has been properly extracted from their information systems;
- Kemira has made reasonable endeavours to give a fair and balanced disclosure of information on environmental performance, where material;
- the report has been prepared in line with the revised *CEFIC Health, Safety and Environmental Reporting Guidelines*, although full compliance with all changes necessitates a transition period;
- Kemira's approach to reporting continues to be in line with the European Commission interpretative communication concerning certain articles of the fourth and seventh Council Directives on accounting and, where appropriate, meets the requirements of International Accounting Standard IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.

Helsinki, 19 February 1999

KPMG WIDERI OY AB

Hannu Niilekselä
Authorized Public Accountant

SUMMARIES OF THE MOST IMPORTANT PRESS RELEASES

JANUARY

Tikkurila continued to focus on its core business areas and sold its one-third interest in McWhorter Technologies AB, which manufactures paint resins.

Kemira Fine Chemicals concluded a long-term delivery agreement, worth about FIM one billion, according to which it will manufacture a pesticide for maize cultivation for Rhône Poulenc Agro of France on a custom manufacturing basis. The product will be manufactured in Kokkola, Finland.

Kemira Agro established a logistics centre near Tallinn, Estonia. The new facilities will be primarily used for the storage, blending and packing of fertilizers that are exported to the Estonian market. In line with its strategy, Kemira Agro is expanding its operations in the Baltic area.

FEBRUARY

Kemira Chemicals' Swedish subsidiary Kemira Kemi AB purchased the worldwide feed phosphate business of the BASF Group of Germany. The deal made Kemira one of the world's largest producers in this field. Kemira manufactures feed phosphates in Sweden, Denmark and Finland.

MARCH

Tikkurila and Baltcolor of Poland reached agreement on establishing a joint venture in Szczecin, Poland. The new company, in which Tikkurila has a 60% interest, will begin manufacturing paints for both industry and private consumption.

APRIL

Kemira Safety signed an agreement to deliver 12,000 protective masks to the Kuwait National Guard. The product is the ultramodern M-95 military protection mask that was developed by Kemira Safety for the Finnish Defence Forces.

Kemira Agro and Arab Potash Company of Jordan signed a memorandum of intent concerning the establishment in Jordan of a joint venture that will manufacture special potassium fertilizers and feed additives.

MAY

Tikkurila CPS opened a representative office in Shenyang, China. The representative office will market Tikkurila CPS tinting systems in China and provide the technical support which paint factories require when putting a tinting system into operation.

Kemira Chemicals' Swedish subsidiary Kemira Kemi AB and Kynoch Feeds of South Africa set up a joint venture to market animal nutrition products. The new company, KK Animal Nutrition, is located in South Africa and its net sales are estimated at about FIM 190 million.

Kemira Chemicals' Kemwater business unit and Diper Kimya of Turkey established a joint venture in the water chemicals field in Izmir in western Turkey. Kemira Chemicals' holding in the new company, Kemwater Diper Environmental Chemicals, is 51%. The products of the plant, which will soon be built, will be used in the treatment of drinking and waste water as well as for the treatment of industrial waste water.

Kemira Agro announced that it was initiating an extensive structural transformation at its plants in Denmark with the objective of achieving cost savings and additional income in excess of 100 million Danish kroner.

JUNE

Kemira Chemicals' Kemwater unit signed an agreement with Solvay of Belgium on the purchase of the company's ferrichloride production in Rheinberg, Germany. Germany is an important and core market area for Kemira Chemicals.

Corob S.p.A., a subsidiary of **Tikkurila CPS**, decided to expand its production capacity for automatic tinting machines in Modena, Italy.

Kemira Chemicals' associated company Kemira Algérie S.p.A. announced that it was building a plant that will manufacture solid aluminium sulphate in Oran, Algeria. The product is used for purifying drinking water. The project will open up for Kemwater new possibilities to expand into an area where only a limited amount of water is available.

Tikkurila CPS established in Singapore a subsidiary to market advanced tinting systems, to provide technical support for customers and to manufacture colorants.

Kemira Chemicals' Swedish subsidiary Kemira Kemi AB and P.J. Ensio S.A. of Mexico established a joint venture to produce and market water treatment chemicals. Kemira Kemi will have a 51% holding in the new company, Kemwater de México S.A. In addition to Mexico, Kemwater is seeking to gain a foothold in the growing Central American market.

Kemira Kemi AB acquired a 55% interest in ProChemie of the Czech Republic, a company which imports and markets water treatment chemicals. Kemira Kemi will build an aluminium sulphate plant in the Czech Republic, where it already has a joint venture, Kemifloc, which was established with the local company Precheza.

AUGUST

Kemira Chemicals purchased a hydrogen peroxide plant from Hanwha Chemical Corporation of South Korea. The plant is located in the City of Ulsan and its net sales are estimated at about FIM 150 million. The company's new name will be Kemira Chemicals Korea Corporation. Kemira Chemicals foresees a strong increase in the use of hydrogen peroxide in South Korea and elsewhere in the Far East. Kemira Chemicals has another hydrogen peroxide plant, which operates as a joint venture in Japan.

SEPTEMBER

Tikkurila CPS and the Swiss logistics company Swisslog established a joint venture to develop, manufacture and sell tinting machines worldwide. Tikkurila and Swisslog own the company on a fifty-fifty basis.

OCTOBER

Kemira Agro announced it was launching a programme to boost its profitability and maintain its competitiveness. The programme aims to achieve an improvement of at least FIM 200 million in Kemira Agro's level of earnings beginning in 2001.

Kemira Chemicals' Austrian subsidiary Kemira Chemie Ges.mbH purchased the aluminium sulphate business of Krems Chemie AG of Austria. By way of this deal, Kemira Chemicals will ensure the continued manufacture of this product in Austria and strengthen its position in the local market. In Austria, aluminium sulphate is used primarily in paper sizing as well as retention and the treatment of circulating water in the pulp and paper industry, but it also finds applications in the purification of drinking and waste water.

NOVEMBER

Kemira Oyj announced it was establishing a FIM two billion bond programme as part of its financing programme and at the same time that it was floating within the framework of this programme two FIM 750 million issues of serial bonds, for which it was seeking a listing on the Helsinki Stock Exchange. In the first public auction of the serial bonds, two tranches totalling FIM 367 million were issued.

Kemira Chemicals' Swedish subsidiary Kemira Kemi AB launched a profitability improvement programme with the aim of achieving annual cost savings of more than FIM 30 million.

DECEMBER

Kemira Pigments approved FIM 200 million of investments aiming at doubling its special product manufacturing capacity, increasing the efficiency of energy use, modernizing process control and introducing a new enterprise management system.

The Board of Directors of Kemira Oyj was re-elected for the 1999 financial year. The company's president and CEO, Heimo Karinen, indicated that he was retiring on 31 December 1999 at the age of 60.

Kemira Chemicals acquired DuPont Canada's hydrogen peroxide plant, which is located in Maitland, Ontario. North America is the world's largest single market area for pulp and paper chemicals. Kemira Chemicals has a sales company for these products in both the United States and Canada.

Artist Teemu Saukkonen's work Warm Retreat won the FIM 50,000 first prize in Kemira's art competition. The other award winners were artists Heli Mäki-Arvela, Pekka Vesterinen, Jorma Hautala, Riikka Wesamaa and Juha Sääski. The main goals of the competition were to support Finnish culture and to come up with fresh views that bring joy to daily life and spark insight. At the same time works were sought that could be completed in different parts of Kemira House. (Photograph: Hannu Bask)

ADMINISTRATION

According to the Articles of Association of Kemira Oyj, the company's affairs are managed by a Supervisory Board, a Board of Directors and a managing director. One or more deputy managing directors can be named for the company. The Supervisory Board is composed of a minimum of eight and a maximum of ten members, all of whom are elected by the Annual General Meeting for one year at a time, counting from the Annual General Meeting at which the election was held. The Annual General Meeting elects one member as chairman and a maximum of two vice chairmen.

The Board of Directors, which is elected by the Supervisory Board, comprises a minimum of four and a maximum of six members. The Supervisory Board elects one member as chairman and one member as vice chairman.

SUPERVISORY BOARD

The task of the Supervisory Board is to oversee that the company's affairs are managed according to sound business principles and with a view to profitability, in observance of the regulations of the Articles of Association, resolutions of meetings of shareholders and other confirmed standing rules. It is the task of the Supervisory Board to decide, within the limits indicated by the Articles of Association, on the number of members of the Board of Directors, to appoint and dismiss the managing director, deputy managing directors and members of the Board of Directors as well as to determine their compensation. It also decides on matters concerning a considerable constriction or expansion of operations, and decides on instructions to be given to the Board of Directors concerning matters of wide-ranging import or which are important in principle. The Supervisory Board gives its statement to the Annual General Meeting concerning the parent company and consolidated financial statements and the Auditors' Report as well as decides on calling meetings of shareholders. The emoluments of the Supervisory Board are decided by the Annual General Meeting.

The Supervisory Board meets about six times a year. During the past financial year the Supervisory Board met seven times.

BOARD OF DIRECTORS

The task of the Board of Directors is to prepare matters that will be dealt with at meetings of shareholders and meetings of the Supervisory Board as well as to see to the implementation of decisions of the meetings of shareholders and the Supervisory Board. Its task is also to appoint and dismiss other officers upon a proposal by the managing director and to determine their compensation. The Board of Directors handles those administrative tasks that do not belong to the Supervisory Board or which have not been assigned to the managing director or to other individuals. The Board of Directors decides on the transfer and pledging of property as well as grants and cancels authorizations to sign the company's business name. The Board of Directors also handles the other tasks in its competence under the Companies Act.

The Board of Directors is responsible for duly organizing the company's accounting and overseeing the management of its funds. The Board of Directors is also responsible for seeing to it that the company's financial statements give correct and sufficient information and that the income statement and balance sheet have been prepared substantially in conformity with International Accounting Standards (IAS).

The company maintains an internal control system for the purpose of ensuring the reliability of financial reporting and to provide protection against significant misuse or loss of company assets. The internal control system is supported by approved policies and procedures which are observed at all Group companies as well as by an internal audit department whose staff operate in accordance with the procedures and principles confirmed by the Board of Directors.

The Board of Directors of Kemira Oyj met 17 times during the financial year.

MANAGING DIRECTOR

According to the Articles of Association, the task of the managing director is to manage and develop the company and the Group in accordance with the instructions and regulations issued by the Board of Directors. The managing director is responsible for ensuring that the interests of the company and the Group are taken into account at subsidiaries and associated companies that are owned by the parent company. The managing director likewise implements the decisions of the Board of Directors. The managing director of Kemira Oyj since 1991 has been Heimo Karinen, who has indicated his intention to retire at the end of 1999.

AUDITORS

The Annual General Meeting elects as auditors a minimum of one and a maximum of three ordinary auditors and as needed one deputy auditor. One of the auditors must be an auditor approved by the Central Chamber of Commerce. The auditor of Kemira Oyj is the firm of public accountants KPMG Wideri Oy Ab, with Hannu Nilekselä acting as responsible auditor.

SUPERVISORY BOARD

Timo Kalli, Chairman, born 1947, farmer, Member of Parliament.

Kari Rajamäki, I Vice Chairman, born 1948, M.Sc.(Admin.), Member of Parliament.

Hanna Markkula-Kivisilta, II Vice Chairman, born 1965, M.Sc.(Pol.Sc.), Member of Parliament.

Helena Rissanen, born 1949, chairman of the Union of Salaried Employees in Industry in Finland.

Risto Ranki, born 1948, Licentiate in Political Science, B.Sc., Deputy Director General of the Ministry of Trade and Industry.

Sirpa Hertell, born 1955, horticulturist, Secretary General of the Green Women's Association.

Pekka Kainulainen, born 1941, Licentiate in Technology, managing director of Oy Liikkeenjohdon koulutuskeskus Ab since 1972, Chairman of the Board of Directors of Amer Group Plc since 1997, vice chairman of the Board of Directors of Oy Talentum Ab since 1992. 600 Kemira shares.*

Mikko Långström, born 1940, M.Sc.(Econ.), B.Sc.(Eng.), consulting director of Oy Mec-Rastor Ab 1969-1981, managing director of Haka-Auto Oy 1981-1994 and owner 1989-1993, managing director of Longinvest Oy since 1993. 11,000 Kemira shares.*

Niilo Pellonmaa, born 1941, M.Sc.(Econ.), group controller of Enso-Gutzeit Oy 1972-1977, member of the Board of Directors of Union Bank of Finland 1977-1990, president of Veitsiluoto Oy 1990-1995, president of Finvest Oyj 1996-1997 and member of the Board of Directors since 1998, president of Jaakko Pöyry Group Oyj 1998 and member of the Board of Directors since 1998. 11,000 Kemira shares.*

Employee representatives (right of attendance and expression of views, no voting rights):

Pertti Kautto, born 1945, safety manager, representing managerial employees.
Jorma Luukkonen, born 1945, work planner, representing technical employees.
Oili Kuusjärvi, born 1947, copyist, representing clerical employees.
Jukka Virta, born 1942, operator, representing workers.
Tauno Korhonen, born 1946, operator, representing workers.

AUDITORS

KPMG Wideri Oy Ab, with **Hannu Niilekselä,** Authorized Public Accountant, acting as responsible auditor.

BOARD OF DIRECTORS

Heimo Karinen, born 1939, M.Sc.(Eng.). With Kemira since 1964. Director of the Agricultural Division 1987-90. Deputy CEO 1990-91. CEO, Chairman of the Board of Directors since 1991. Oversees Kemira Chemicals, Kemira Pigments, Corporate Planning, Business Development, Personnel and Communications. 3,702 shares and 330,000 options.*

Member of the Board: PVO Group and Industrial Insurance Company Ltd. Member of the Supervisory Board: Teollisuuden Voima, Merita Bank and Sampo Insurance Company.

Timo Mattila, born 1943, Licentiate in Technology. With Kemira since 1972. Director of the Harjavalta plant 1986-87. Director of the Research and Technology unit 1987-92. Deputy CEO since 1990, Vice Chairman of the Board of Directors since 1991. Oversees Kemira Safety, Kemira Metalkat, Corporate R&D, Environmental Management and Audit Management. 2,489 shares and 240,000 options.* Memberships of different research institutes.

Juhani Kari, born 1944, LL.M. With Kemira since 1969. Director of Administration and Legal Counsel of Tikkurila Oy 1973-83. Executive Vice President, Legal Affairs since 1983. Member of the Board of Directors since 1990. Deputy managing director since 1995. Oversees Tikkurila and Legal and Insurance Affairs. 1,075 shares and 240,000 options.*

Esa Tirkkonen, born 1949, M.Sc.(Eng.). With Kemira since 1974. Vice President, Purchasing, Agricultural Division, 1980-90. Director of the Agricultural Division 1990-93. Member of the Board of Directors since 1991. Deputy managing director and Executive Vice President, Finance and Treasury since 1995. Oversees Kemira Agro, Finance, Treasury, Energy and Group Synergy. 1,075 shares and 240,000 options.*

Vice President of IFA, Vice Chairman of the Trade Policy Committee of CEFIC, member of the Board of Directors of Teollisuuden Voima Oy.

Leif Ekström, born 1942, M.Sc.(Econ.). Chairman of the Board of Directors and Managing Director of Oy Fictivus Ab. Member of the Board of Directors of Kemira Oyj since 1994.

Chairman of the Board Directors: Metorex International Oy since 1997, Nopon Oy since 1998. Member of the Board of Directors: Elanto and subsidiaries since 1996, Restel Oy since 1997, Altia Group Oy since 1999.

Sten-Olof Hansén, born 1939, D.Sc.(Econ.) Professor of international marketing, Turku School of Economics and Business Administration. Member of the Board of Directors of Kemira Oyj since 1994. 1,605 shares.*

Occupies positions of trust within universities and foundations. Chairman of the Board of Directors: Vetcare Oy since 1996, Innomedica Oy since 1998. Member of the Board of Directors: Perlos Oy since 1997.

* The number of Kemira shares and share options owned by the person as at 31 January 1999.

OTHER GROUP ADMINISTRATION

Raija Arasjärvi, born 1957, M.Sc.(Econ.)
Finance

Kari Autio, born 1945, M.Sc.(Eng.)
Business Development

Kaj Friman, born 1943, LL.M., B.Sc.(Econ.)
Secretary to the Supervisory Board and Board of Directors
Treasury
Group Communications

Timo Leppä, born 1957, M.Sc.(Eng.), CEFA
Corporate Planning

Orvo Rauma, born 1940, B.Sc.(Econ.)
Personnel

Aarno Salminen, born 1956, M.A.
Environmental Management

Mikko Sivonen, born 1941, M.Sc.(Eng.)
Energy

MANAGEMENT OF THE CORE BUSINESS AREAS

Yrjö Sipilä, born 1949, B.Sc.(Econ.). With Kemira since 1975. President of Kemira Chemicals Oy since 1990.**

Risto Keränen, born 1949, Licentiate in Technology. With Kemira since 1984. President of Kemira Pigments Oy since 1997.

Tauno Pihlava, born 1946, M.Sc.(Eng.). With Kemira since 1970. President of Kemira Agro Oy since 1994.

Raimo Piironen, born 1949, B.Sc.(Econ.). With Kemira since 1982. President of Tikkurila Oy since 1988.

** Year of appointment as head of the division according to the previous organizational structure.

BOARDS OF DIRECTORS OF THE PRINCIPAL SUBSIDIARIES IN 1998

KEMIRA CHEMICALS OY
Heimo Karinen
Timo Mattila
Juhani Kari
Kaj Friman
Yrjö Sipilä

KEMIRA PIGMENTS OY
Heimo Karinen
Timo Mattila
Esa Tirkkonen
Risto Keränen
Matti Lapinleimu
Risto Ojala

KEMIRA AGRO OY
Heimo Karinen
Esa Tirkkonen
Raija Arasjärvi
Tauno Pihlava
Timo Lainto
Rauno Valkonen

TIKKURILA OY
Juhani Kari
Esa Tirkkonen
Kaj Friman
Raimo Piironen
Teijo Småträsk

INVESTMENT ANALYSIS

The following banks and brokerage firms are known to have prepared an investment analysis of Kemira in 1998:

AAG Private Bankers Ltd
Keskuskatu 3
00100 Helsinki
Finland

Alfred Berg Finland Oy
Kluuvikatu 3
00100 Helsinki
Finland

Aros Securities P.O. Box 786
00101 Helsinki
Finland

BTAlex.Brown
135 Bishopsgate
London EC2M 3XT
U.K.

D. Carnegie Ab Finland Branch
Eteläesplanadi 12
00130 Helsinki
Finland

Crédit Lyonnais Securities Europe
Broadwalk House
5 Appod Street
London EC3A 2DA
U.K.

Credit Suisse First Boston (Europe) Ltd
One Cabot Square
London E14 4QJ
U.K.

Den Danske Bank 2 - 12
Holmens Kanal
DK-1092 Copenhagen K
Danmark

Enskilda Research
P.O. Box 630
00101 Helsinki
Finland

Goldman Sachs International
Peterborough Court
133 Fleet Street
London EC4A 2BB
U.K.

Handelsbanken Markets
P.O. Box 315
00131 Helsinki
Finland

Crédit Agricole Indosuez Cheuvreux
International Ltd
CU Building St. Helens
1 Undershaft
London EC3P 3DQ
U.K.

Dresdner Kleinwort Benson
20 Fenchurch Street
London EC3P 3DB
U.K.

Merita Securities Ltd
Fabianinkatu 29 B
00020 MERITA
Finland

Merrill Lynch International Ltd
20 Farringdon Road
London EC1M 3NH
U.K.

Opstock Securities Ltd
P.O. Box 362
00101 Helsinki

Salomon Smith Barney
Victoria Plaza 111
Buckingham Palace Road
London SW1W 0SB
U.K.

WestLB Research GmbH
Elisabethstrasse 44-46
40217 Düsseldorf
Deutschland

GLOSSARY

ACE
Agricultural, construction and earth-moving (equipment).

Alkyd paint
An outdoor or indoor paint that is based on an air-drying alkyd binder. Alkyd is an oil-modified polyester resin. Alkyd paint dries faster than conventional oil paint.

Aluminium sulphate
Mainly used in the paper industry. Also used as a coagulant in water purification. It is generally made from aluminium hydroxide using sulphuric acid.

Ammonia
A basic chemical that is produced from natural gas and is mainly a nitrogen-containing raw material in fertilizers.

Ammonium nitrate (AN)
A nitrogen fertilizer.

Audit
A systematic, independent and documented inspection or evaluation in which operations are compared with given requirements or guidelines. An audit can be performed by an external party or by an internal expert.

Calcium ammonium nitrate (CAN)
An AN fertilizer to which ground Limestone has been added in the manufacturing process.

Calcium chloride
An industrial salt that is made from limestone using hydrochloric acid. It has a variety of uses such as in dust binding on roads, oil drilling and applications in the food-processing industry.

Calcium ammonium nitrate
A nitrogen fertilizer. Ammonium nitrate into which powdered limestone is mixed as part of the production process.

CAN
See calcium ammonium nitrate.

Can coatings
Cancoatings for the beverage and food industry. The coating acts as an insulating layer between the food product and the can or cap.

Carbon sink
A part of the earth that permanently removes carbon dioxide from the atmosphere and binds it in organic compounds. The most important carbon sinks are the world's oceans and forests.

CEFIC
The umbrella organization of the European Chemical industry (Confédération Européenne des Fédérations de l'Industrie Chimique).

Chemical Oxygen Demand (COD)
A quantity connected with waste waters. It mainly serves to measure the ability of organic substances to consume oxygen in water.

Coil coating
A method of coating metal sheets.

Compound fertilizer, complex fertilizer
A fertilizer that contains in every granule a number of elements that are essential for plants.

CPS
Colour Processing Systems.

Dicalcium phosphate (DCP)
A raw material for animal feed, manufactured from raw phosphate and limestone.

EHS
Environment, Health and Safety.

EMAS
(Eco-Management and Audit Scheme) An environmental management system that is based on a European Community regulation. Industrial companies can register for it voluntarily.

Environmental report
A company's public report that is free-form in terms of its content and deals with environmental issues connected with the company's operations. It is published either separately or as part of the Annual Report at discretionary intervals.

Environmental business
The sale of products and services that are used directly for environmental protection or are closely related to it.

Environmental chemical
A chemical that is used for environmental protection purposes or closely connected to it. For example, chemicals used in treating waste water.

Environmental disclosure
A yearly report by a company on the releases caused by its operations as well as their environmental impacts, liabilities, costs, legislative compliance and other related environmental issues of major importance. It is becoming an increasingly integral part of the financial reporting.

Environmental management system
A company's regular, documented description of how it acts in managing environmental affairs. The main components are the drawing up of an environmental policy, the setting and measuring of objectives as well as auditing.

Environmental technology
Equipment used for environmental protection purposes.

Ferrichloride
An iron-based water treatment chemical.

Ferix
Product name. Granular ferrisulphate, a water treatment chemical.

Ferrous sulphate
An iron-based water treatment chemical or a raw material used in such chemicals. It is generated as a byproduct in the manufacture of titanium dioxide pigment. Also used in feeds.

Formamide
A solvent and raw material used in the chemical and pharmaceutical industries, a derivative of formic acid.

Formic acid
Manufactured from carbon monoxide and methanol. Mainly used in silage additives as well as in the textile, pharmaceutical and rubber industries.

Greenhouse gases
Gases that promote heating of the atmosphere, the most important of which are carbon dioxide, methane and laughing gas (nitrous oxide).

HAZOP
A risk analysis method that is used in the process industry to improve working methods and the technical safety of equipment.

Hydrogen peroxide (H_2O_2)
A reactive oxygen chemical that is used especially in the environmentally sound bleaching of pulp, and also as a disinfectant and in environmental applications. Its raw materials are hydrogen and the oxygen found in air.

IFA
International Fertilizer Industry Association.

Ilmenite
The raw material of titanium dioxide pigment, an ore which has a relatively low concentration of titanium.

ISO
The International Standards Organization.

ISO 14001
An International standard that defines the requirements of an environmental management system. A company or institution that complies with the requirements can obtain a certificate according to the standard.

KREPRO
The Kemwater Recycling Process separates metals, heavy metals, phosphorus and carbon out from waste water sludge and recirculates them for useful purposes.

LORIS (KEMIRA LORIS)
Local Resource Information System) A satellite-controlled precision farming system.

Methylene urea
A slow-acting nitrogen fertilizer.

Monocalcium phosphate (MCP)
A feed raw material that is manufactured using limestone and pure phosphoric acid.

Nitric acid
A basic chemical that is made from ammonia by catalytic combustion. An important intermediale in fertilizer manufacture.

Nitrogen oxides
Mainly nitrogen monoxide (NO) and nitrogen dioxide (NO_2). Nitrogen gases that are formed as emissions in combustion and, for example, in the manufacture of nitric acid. Nitric oxides cause acidification and impair air quality.

Nitrogen (N)
An element that is essential for the growth of plants.

NK fertilizer
Fertilizer containing nitrogen and potassium.

NPK fertilizer
A compound fertilizer containing nitrogen, phosphorus and potassium as its main nutrients. A number of trace elements can also be added to it.

Organic mineral fertilizer
Composed of both organic substances (e.g. peat) and inorganic salts.

Peracetic acid
A reactive acid chemical that is used in the environmentally sound bleaching of pulp.

Phosphate
A phosphorus compound which occurs in natural ores and is used as a raw material in fertilizers, animal feeds and detergents.

Phosphogypsum
A gypsum that is formed as a byproduct in the manufacture of phosphoric acid.

Phosphoric acid
An acid that is manufactured from phosphate concentrate using sulphuric acid and is used as a raw material in products such as compound fertilizers, feed phosphates, detergents and processed foods.

Phosphorus (P)
An element that is essential for life. One of the three main nutrients in fertilizers. It is obtained by processing phosphate-containing ores.

Pickling liquor
An acidic solution that is used to surface coat metals.

PK fertilizer
Fertilizer containing phosphorus and potassium.

Polyaluminium chloride
A chemical coagulant that is used in the treatment of drinking water and waste water.

POP
Persistent Organic Pollutant.

Potassium (K)
An element. One of the three main nutrients in compound fertilizers. It is excavated mainly in salt mines in the form of potassium chloride.

Potassium nitrate
A nitrogen and potassium fertilizer that is used in horticulture.

Process chemicals
Products that are primarily sold to the process industry, such as nitric acid, ammonia and technical urea.

ProGips
Product name. Gypsum raw material used by the construction industry.

Responsible Care (RC)
The chemical industry's voluntary, worldwide environmental and safety programme.

Rutile ore
A raw material in titanium dioxide pigment. It contains a large amount of titanium dioxide.

Sodium percarbonate
A raw material in detergents. It is made from soda using hydrogen peroxide.

Straight fertilizer
A fertilizer containing one plant nutrient.

Sulphur dioxide
An industrial gas which is used mainly by the forest industry and is manufactured, for example, by burning elementary sulphur or by means of its recovery from process gases. It is also an acidification-causing emission that is produced when sulphur-containing fuels are burnt.

Sulphuric acid
A widely used basic chemical that is produced from sulphur dioxide gas. The raw gas is obtained from the roasting of certain ores, or by burning elementary sulphur.

Stabilization
Bringing to a permanent state. For example, the chemical composition of a hazardous waste can be changed or the solubility in water of the waste can be lowered by means of various treatment techniques

Tinting system
A method of producing coloured paint. The system comprises (base paints,) tinting colourants, tinting formulae, dispensing machines, shakers, colour matching systems, PC software, and colour cards.

TiO_2
Titanium dioxide.

Titanium dioxide pigment
A white pigment. An important raw material in the manufacture of paint, paper, plastics and printing ink. It is manufactured from titanium-containing ores and slag in a complex process involving the use of sulphuric acid or chlorine and numerous auxiliary chemicals. The methods of manufacture are the sulphate process and the chloride process.

Ultrafine TiO_2
A very fine crystal titanium dioxide that is invisible in the product application and protects against UV radiation.

Urea
A single-nutrient fertilizer that contains a large amount of nitrogen and is manufactured from ammonia and carbon dioxide. It is also used in resin adhesives.

UC cured product
Lacquer or paint cured by ultra-violet radiation.

Water chemical
A chemical used in treating water.

VIC
(Volatile Inorganic Compounds)
These compounds include ammonia, chlorine and fluorine that are formed as emissions mainly from the processes of the basic inorganic industries.

VOC
(Volatile Organic Compounds)
These compounds are mainly solvents which in normal conditions evaporate into the air, notably with effects on the generation of ozone.

GROUP COMPANIES

31 December 1998

Company	Group holding %	Location	
Kemira Oyj		Finland, Helsinki	
Kemira Chemicals Oy	100	Finland, Helsinki	■
Kemira Kemi AB	100	Sweden, Helsingborg	■
Kemira Chimie S.A.	100	France, Lauterbourg	■
Kemira Chemicals AS	100	Norway, Gamle Fredrikstad	■
Kemwater Cristal S.A.	73	Rumania, Bucharest	■
Alchim S.R.L.	73	Rumania, Tulcea	■
Societatea Comercala Chimbis S.A.	50	Rumania, Bistrita	■
Kemira Miljö A/S	100	Denmark, Esbjerg	■
Scandinavian Silver Eel AB	100	Sweden, Helsingborg	■
Aliada Quimica S.A.	100	Spain, Barcelona	●
Kemira Ibérica S.A.	100	Spain, Barcelona	■
Kemira lbérica Internacional S.L.	100	Spain, Barcelona	●
Aliada Quimica de Portugal Lda.	74	Portugal, Estarreja	■
Kemira Chimica S.p.A.	100	Italy, Ossona	■
Kemifloc a.s.	51	Czech Republic, Prerov	■
Kemwater Närke AB	92	Sweden, Kumla	■
Kemipol Sp.z.o.o.	51	Poland, Police	■
Kemira Kopparverket KB	100	Sweden, Helsingborg	●
Ahlbo Kemi AB	100	Sweden, Helsingborg	●
Kemwater Brasil S.A.	51	Brazil, São Paulo	■
Kemwater de México, S.A. de C.V.	51	Mexico, Cuarnavaca	■
Kemwater ProChemie s.r.o.	60	Czech Republic, Bakov nad Jizerou	■
Kemira Fine Chemicals Oy	100	Finland, Kokkola	■
Kemira Chemicals (UK) Ltd	100	United Kingdom, Harrogate	▲
Kemira Chemie GmbH	100	Germany, Hanau	▲
Kemira Chemie Ges.mbH	100	Austria, Vienna	▲
Kemira Chem Holding B.V.	100	The Netherlands, Rotterdam	●
Kemira Chemicals B.V.	100	The Netherlands, Rozenburg	■
Prospector B.V.	100	The Netherlands, Rozenburg	●
Kemwater B.V.	100	The Netherlands, Rotterdam	■
Kemira Kemax B.V.	100	The Netherlands, Rozenburg	●
Kemira Chemicals S.A./N.V.	100	Belgium, Wavre	▲
Kemira Chemicals Inc.	100	United States, Savannah, GA	●
Kemira Paper Chemicals Inc.	100	United States, Savannah, GA	▲
Kemira Paper Chemicals Canada Inc.	100	Canada, Dorion, Que.	▲
Kemira Chemicals Korea Corporation	100	South Korea, Ulsan	■
Kemira Chemicals Canada Inc.	100	Canada, Maitland, Ont.	■
Kemira Chemicals U.S. Inc	100	United States, Philadelphia, PA	▲
AS Kemivesi	50	Estonia, Tallinn	■
Kemwater (Thailand) Ltd	49	Thailand, Bangkok	■
Kemira Pigments Oy	100	Finland, Pori	■
Kemira Holdings Inc.	100	United States, Savannah, GA	●
Kemira Pigments Inc.	100	United States, Savannah, GA	■
Kemira Pigments AB	100	Sweden, Helsingborg	▲
Kemira Pigments Kereskedelmi KFT	100	Hungary, Budapest	▲
Kemira Pigments Holding B.V.	100	The Netherlands, Rotterdam	●
Kemira Pigments B.V.	100	The Netherlands, Rozenburg	■
Kemira Pigmente GmbH	100	Germany, Cologne	▲
Kemira Services Holland B.V.	100	The Netherlands, Rotterdam	□
Kemira International Finance B.V.	100	The Netherlands, Rotterdam	□
Kemira Agro Rozenburg B.V.	100	The Netherlands, Europoort Rt	■
Kemira Agro Pernis B.V.	100	The Netherlands, Rotterdam	■
Kemira Finance B.V.	100	The Netherlands, Rozenburg	●
Kemira Pigments S.A. [1)]	100	Belgium, Wavre	▲
Kemira Pigments Asia Pacific Pte. Ltd.	100	Singapore	▲
Kemira Pigments Latin America Comercial Ltda.	100	Chile, Santiago	▲

Company	Group ho
Kemira Agro Oy	
Kemira Agro Holdings Ltd	
Kemira Agro U.K. Ltd	
Kemira Ltd	
Kemira N.I. Ltd	
Kemira Ireland Ltd	
Kemira Danmark A/S	
Kemira S.A./N.V.	
Battaille S.A.	
Engrais Battaille S.A.	
Kemira Engrais S.A.	
Kemira Agro Holding B.V.	
Kemira B.V.	
Kemira Pernis B.V.	
Kencica Speciaalmeststoffen B.V.	
Kemira Deutschland GmbH	
Comercial de Fertilizantes Liquidos S.A.	
Viljavuuspalvelu Oy	
Mykora Oy	
A. Jalander Oy	
A. Jalander Eesti Oü	
SiA Kemira Agro Latvija	
ZAO Kemira Agro	
Kemira Agro Poland Sp. z o.o.	
Kemira Sdn. Bhd.	
Kemira Agro Hungary Ltd Co.	
AS Kemira Agro Eesti	
UAB Kemira Agro Vilnius	
AS Fertimix	
Tikkurila Oy	
Tikkurila Paints Oy	
AS Baltic Color [2)]	
UAB Baltic Color	
ZAO Finncolor	
Tikkurila Festék KFT	
Imagica Ltd	
Spetra S.r.l.	
A/S Baltic Color [2)]	
Tikkurila Baltcolor Sp. z o.o. [3)]	
Tikkurila Coatings Oy	
Kemira Coatings Ltd	
Kemira Coatings (Ireland) Ltd	
Northern Universal Coatings Ltd	
Industrial Coatings Eastern Ltd	
Industrial Coatings Northern Ltd	
Industrial Coatings Western Ltd	
Southern Coatings and Services Ltd	
Universal Surface Coatings Ltd	
Dickursby Färg AB [3)]	
Tikkurila Ltd	
Becker Acroma Ltd [2)]	
Becker Acroma (Ireland) Ltd [2)]	
AS Tikkurila Industrial Coatings	
Tikkurila Coatings KFT	
ZAO Tikkurila Coatings	
Tikkurila CPS Oy	
Winter-Bouts B.V.	

■ = production
▲ = marketing
● = holding
□ = service

■ Kemira Chemicals
■ Kemira Pigments
■ Kemira Agro
■ Tikkurila
■ Other

...lding %	Location	
100	Finland, Helsinki	■
100	United Kingdom, Ince	●
100	United Kingdom, Ince	■
100	United Kingdom, Ince	■
100	United Kingdom, Hillsborough	■
100	Ireland, Dublin	▲
100	Denmark, Fredericia	■
100	Belgium, Wavre	■
100	Belgium, Basècles	■
100	Belgium, Basècles	■
100	France, Ribécourt	▲
100	The Netherlands, Vondelingenplaat Rt	●
100	The Netherlands, Vondelingenplaat Rt	●
100	The Netherlands, Vondelingenplaat Rt	●
100	The Netherlands, Maastricht	▲
100	Germany, Hannover	▲
50	Spain, Valencia	▲
80	Finland, Mikkeli	□
100	Finland, Kiukainen	■
100	Finland, Muurla	■
100	Estonia, Tallinn	■
100	Latvia, Riga	▲
100	Russia, Moscow	▲
100	Poland, Szczecin	▲
100	Malaysia, Kuala Lumpur	▲
100	Hungary, Hódmezóvásárhely	▲
100	Estonia, Tallinn	▲
100	Lithuania, Vilnius	▲
100	Estonia, Tallinn	■
100	Finland, Vantaa	□
100	Finland, Vantaa	■
50	Estonia, Tallinn	■
50	Lithuania, Vilnius	▲
100	Russia, St. Petersburg	■
100	Hungary, Budapest	▲
100	United Kingdom, Uxbridge	▲
100	Italy, Modena	■
50	Latvia, Riga	■
60	Poland, Sczcecin	■
100	Finland, Vantaa	■
100	United Kingdom, Bury	■
100	Ireland, Cork	▲
100	United Kingdom, Heywood	▲
100	United Kingdom, Colchester	▲
75	United Kingdom, North Shields	▲
75	United Kingdom, Bristol	▲
75	United Kingdom, Sutton	▲
100	United Kingdom, Sutton-in-Ashfield	▲
100	Sweden, Spånga	▲
100	United Kingdom, Haverhill	●
50	United Kingdom, Haverhill	■
50	Ireland, Bray	▲
100	Estonia, Tallinn	▲
100	Hungary, Budapest	▲
100	Russia, St. Petersburg	▲
100	Finland, Vantaa	■
100	The Netherlands, Sittard	■

Company	Group holding %	Location	
Kemira Color B.V.	100	The Netherlands, Dordrecht	■
Winter-Bouts GmbH	100	Germany, Hamburg	▲
Tikkurila Ltda	100	Brazil, São Paulo	▲
Tikkurila Pty Ltd	100	Australia, Wetherill Park	■
Corob International AG	50	Switzerland, Aarau	●
Corob Oy	50	Finland, Ulvila	■
Corob Color Robots B.V.	50	Holland, Eindhoven	●
Taotek S.p.A.	50	Italy, Modena	●
Corob S.p.A.	50	Italy, Modena	■
Corob Scandinavia AB	50	Sweden, Gothenburg	□
Corob CPS Service Systems Ltd	50	United Kingdom, Henley	□
Corob Sudamericana S.A.	50	Uruguay, Montevideo	■
Corob North America Inc.	50	United States, Charlotte, NC	■
Corob Ltd	50	Hong Kong	▲
Matherson S.p.A.	100	Italy, Bergamo	■
Tikkurila Inc.	100	United States, Philadelphia. PA	■
Tikkurila CPS (SEA) Pte Ltd	100	Singapore	■
Tikkurila Services Oy	100	Finland, Vantaa	□
Kemira Engineering Oy [4]	100	Finland, Helsinki	□
Kemira Metalkat Oy	100	Finland, Laukaa	■
Metpela Oy	100	Finland, Laitila	■
Convertitori Catalitici Europa S.r.l.	100	Italy, Genova	■
Kemira Katalysatoren GmbH	100	Germany, Wiesbaden	▲
Kemira Safety Oy	100	Finland, Vaasa	■
Kemira Safety Ltd	100	United Kingdom, Bromsgrove	▲

[1] Owned in equal shares by Kemira Pigments Oy and Kemira Pigments B.V.
[2] Joint venture.
[3] Owned in equal shares by Tikkurila Coatings Oy and Tikkurila Paints Oy.
[4] Owned in equal shares by Kemira Chemicals Oy, Kemira Pigments Oy and Kemira Agro Oy.

Companies not operative in 1998 are excluded.

ADDRESSES

FINLAND

KEMIRA OYJ
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Tel. +358 10 8611
Fax +358 10 862 1119
www.kemira.com

KEMIRA CHEMICALS OY
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Tel. +358 10 861 211
Fax +358 10 862 1124

KEMIRA CHEMICALS OY
P.O. Box 20
71801 Siilinjärvi
Tel. +358 10 861 215
Fax +358 10 862 6000

KEMIRA CHEMICALS OY
P.O. Box 171
90101 Oulu
Tel. +358 10 861 214
Fax +358 10 862 5000

KEMIRA CHEMICALS OY
Research Centre
P.O. Box 171
90101 Oulu
Tel. +358 10 861 214
Fax +358 10 862 5678

KEMIRA CHEMICALS OY
P.O. Box 74
67101 Kokkola
Tel. +358 10 861 217
Fax +358 10862 8000

KEMIRA CHEMICALS OY
P.O. Box 500
65101 Vaasa
Tel. +358 10 861 216
Fax +358 10 862 7000

KEMIRA CHEMICALS OY
29200 Harjavalta
Tel. +358 10 861 517
Fax +358 10 862 4000

KEMIRA FINE CHEMICALS OY
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Tel. +358 10 861 219
Fax +358 10 862 1624

KEMIRA PIGMENTS OY
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Tel. +358 10 861 414
Fax +358 10 862 1794

KEMIRA PIGMENTS OY
28840 Pori
Tel. +358 2 628 1000
Fax +358 2 628 1149

KEMIRA AGRO OY
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Puh. +358 10 861 511

KEMIRA AGRO OY
Research Centre
Luoteisrinne 2
P.O. Box 44
02271 Espoo
Tel. +358 10 861 516
Fax +358 10 862 2000

KEMIRA AGRO OY
P.O. Box 5
23501 Uusikaupunki
Tel. +358 10 861 518
Fax +358 10 862 3000

KEMIRA AGRO OY
29200 Harjavalta
Tel. +358 10 86 1517
Fax +358 10 86 24219

TIKKURILA OY
P.O. Box 53, Kuninkaalantie 1
01301 Vantaa
Tel. +358 9 857 721
Fax +358 9 8577 6900
www.tikkurila.fi

TIKKURILA PAINTS OY
P.O. Box 53, Kuninkaalantie 1
01301 Vantaa
Tel. +358 9 857 731
Fax +358 9 8577 6902

TIKKURILA COATINGS OY
P.O. Box 53, Kuninkaalantie 1
01301 Vantaa
Tel. +358 9 857 741
Fax +358 9 8577 6911

TIKKURILA CPS OY
P.O. Box 53, Kuninkaalantie 1
01301 Vantaa
Tel. +358 9 857 751
Fax +358 9 8577 6904

TIKKURILA SERVICES OY
P.O. Box 53, Kuninkaalantie 1
01301 Vantaa
Tel. +358 9 857 721
Fax +358 9 8577 6915

COROB OY
Sammontie 5
28400 Ulvila
Tel. +358 2 677 7700
Fax +358 2 677 7701

KEMIRA ENGINEERING OY
Porkkalankatu 3
P.O. Box 330
00101 Helsinki
Tel. +358 10 861 616
Fax +358 10 862 1127

KEMIRA METALKAT OY
P.O. Box 20
41331 Vihtavuori
Puh. +358 10 861 1717
Fax +358 10 863 5000

KEMIRA SAFETY OY
P.O. Box 501
65101 Vaasa
Tel. +358 10 861 811
Fax +358 10 863 6591

METPELA OY
Turuntie 41
23800 Laitila
Tel. +358 2 85 731
Fax +358 2 856 305

VILJAVUUSPALVELU OY
Graanintie 7, P.O. Box 500
50101 Mikkeli
Tel. +358 15 320 400
Fax +358 15 320 4050

A. JALANDER OY
Muurlantie 101 B
25130 Muurla
Tel. +358 2 728 050
Fax +358 2 728 0520

MYKORA OY
27400 Kiukainen
Tel. +358 2 864 5650
Fax +358 2 864 5655

ALGERIA

KEMIRA ALGÉRIE, SPA
1, Rue Doudon Mokntar
Ben Aknoum, Alger
Tel. 999 213 2 912 100
Fax 999 213 2 912 069

AUSTRALIA

TIKKURILA PTY LTD
P.O. Box 7110
33–35 Redfern Street
Wetherill Park, NSW 2164
Tel. +61 2 9604 8300
Fax +61 2 9604 8333

AUSTRIA

KEMIRA CHEMIE GES.MBH
Mariahilfer Strasse 103
A-1060 Wien
Tel. +43 1 597 3767
Fax +43 1 597 376 720

BELGIUM

KEMIRA PIGMENTS S.A.
Avenue Einstein 11
B-1300 Wavre
Tel. +32 10 232 700
Fax +32 10 229 892

KEMIRA S.A./N.V.
Avenue Einstein 11
B-1300 Wavre
Tel. +32 10 232 711
Fax +32 10 228 988

KEMIRA S.A./N.V.
P.O. Box 6
Rue de la Carbo
B-7333 Tertre
Tel. +32 65 712 211
Fax +32 65 641 917

BATTAILLE S.A.
Rue Octave Battaille, 192
B-7971 Basècles
Tel. +32 69 778 521
Fax +32 69 771 347

BRAZIL

KEMWATER BRASIL S.A.
Estrada Particular
Eiji Kikuti, 397
Cooperativa
São Bernardo do Campo - SP
CEP 09852-040
Tel. +55 11 4392 4400
Fax +55 11 4392 4400

TIKKURILA LTDA
Rua Vieira de Morais, 1558
04617-005 Campo Belo
São Paulo – SP
Tel. +55 11 5561 7122
Fax +55 11 543 0553

CANADA

KEMIRA CHEMICALS CANADA INC.
1380 County Rd. No 2,
P.O. Box 615
Canada KOE IPO
Tel. +1 613 348 4437
Fax +1 613 348 4290

KEMIRA PAPER CHEMICALS CANADA INC.
575 Pie XII
Dorion, Quebec
Canada J7V 1Z7
Tel. +1 514 697 9933
Fax +1 514 455 1933

CHILE

KEMIRA PIGMENTS LATIN AMERICA COMERCIAL LIMITADA
Luis Thayer Ojeda 166 Of. 504
Providencia
Santiago
Tel. +56 2 231 9208
Fax +56 2 232 8587

CHINA

KEMIRA AGRO OY BEIJING REPRESENTATIVE OFFICE
Room 802, Scite Tower
No. 22, Jianguomenwai Ave.
100022 Beijing
Tel. +86 10 512 3321
Fax +86 10 512 3320

KEMIRA COMPOUND FERTILISER (ZHANJIANG) CO., LTD
No, 11 Huguang Road
Zhanjiang
524012 Guangdong
Tel. +86 759 221 2214
Fax +86 759 228 6207

COROB Ltd
Unit B, 7/F
Hang Tung Resources Center
No. 18,A Kung Ngam Village Rd.
Shau Kei Wan
Hong Kong
Tel. +852 2557 8108
Fax +852 2566 7160

TIKKURILA CPS OY
Representative Office
No 93–7 of 2nd Quanyuan Rd.
Dongling District
110015 Shenyang City
Tel. +86 24 2423 0438
Fax +86 24 2323 7108

CZECH REPUBLIC

KEMIFLOC A.S.
Nábr. Dr E Benese 24
75062 Prerov CA
Tel. +420 641 253 032
Fax +420 641 253 033

DENMARK

KEMIRA MILJØ A/S
Måde Industrivej 19
DK-6705 Esbjerg
Tel. +45 7545 2555
Fax +45 7545 2575

KEMIRA DANMARK A/S
Kongensgade 107
Box 167
DK-7000 Fredericia
Tel. +45 7922 3366
Fax +45 7922 3322

ESTONIA

AS KEMIVESI
AS Kemivesi
Filtri tee 9A
EE 0001 Tallinn
Tel. +372 6 312 799
Fax +372 6 312 796

KEMIRA AGRO EESTI AS
Merivälja tee 5
EE 0019 Tallinn
Tel. +372 6 300 155
Fax +372 6 300 157

AS BALTIC COLOR
Liimi 5
EE 0006 Tallinn
Tel. +372 6 563 337
Fax +372 6 563 334

AS TIKKURILA
Industrial Coatings
Liimi 5
EE 0006 Tallinn
Tel. +372 6 598 950
Fax +372 6 598 951

FRANCE

KEMIRA CHIMIE S.A.
Route de Mothern
F-67630 Lauterbourg
Tel. +33 38854 9850
Fax +33 38854 9851

KEMIRA ENGRAIS S.A.
Marché d'Intérêt National 80
F-84953 Cavaillon Cedex
Puh. +33 9071 0333
Fax +33 9071 4567

KEMIRA CHIMIE S.A.
207, Rue de Bercy
Tour Mattei, 12e étage
F-75012 Paris
Tel. +33 1 4346 2260
Fax +33 1 4346 2269

GERMANY

KEMIRA CHEMIE GMBH
Langstrasse 60
D-63450 Hanau
Tel. +49 6181 92 470
Fax +49 6181 924 720

KEMIRA PIGMENTE GMBH
Mechtildisstrasse 1
D-50678 Köln
Tel. +49 221 9320508
Fax +49 221 9320510

KEMIRA DEUTSCHLAND GMBH
Postfach 51 07 20
D-30637 Hannover 51
Tel. +49 511 647 4620
Fax +49 511 647 4625

KEMIRA KATALYSATOREN GMBH
Friedrichstrasse 55
D-65185 Wiesbaden
Tel. +49 611 992 420
Fax +49 611 992 4299

HUNGARY

KEMIRA PIGMENTS KFT
Föld u. 67/B
H-1032 Budapest
Tel. +36 1 367 5727
Fax +36 1 387 2574

KEMIRA AGRO HUNGARY LTD. CO.
Vöröskereszt street 6
H-6800 Hódmezóvásárhely
Tel. +36 62 345 404
Fax +36 62 342 183

TIKKURILA COATINGS Kft.
Ecseri út 14–16
H-1097 Budapest
Tel. +36 1 280 8825
Fax +36 1 280 6739

TIKKURILA FESTÉK KFT.
Gyáli út 27-29
H-1097 Budapest
Tel. +36 1 280 8825
Fax +36 1 280 6739

INDIA

COROB INDIA PVT. LTD.
Warden House, 1st Floor
Sir P. M. Road, Fort
Mumbai 400 001
Tel. +91 22 287 2295
Fax +91 22 287 3475

INDONESIA

KEMIRA CHEMICALS REPRESENTATIVE OFFICE
JI. Jatiwaringin Raya 54
Pondok Gede 17411
Jawa Barat
Tel. +62 21 8499 0250
Fax +62 21 8499 0251

KEMIRA AGRO OY REPRESENTATIVE OFFICE
Mr Asul Amru
JI. Jatiwarinrin Roya 54
Pondok gede 17411
Tel. +62 21 8499 0250
Fax +62 21 8499 5626

IRELAND

KEMIRA COATINGS (IRELAND) LTD
Unit B1, Marina
Commercial Park
Centre Park Road
Cork
Tel. +353 21 310 675
Fax +353 21 310 671

ITALY

KEMIRA CHIMICA S.P.A.
Via Verdi 3
I-20010 Ossona
Fraz.Asmonte (MI)
Tel. +39 02 9032 6266
Fax +39 02 9038 0672

COROB S.p.A.
Via Agricoltura, 3
41038 San Felice s/P
Modena
Tel. +39 0535 6630
Fax +39 0535 663 288

MATHERSON S.p.A
Via Olimpia, 2
24030 Presezzo
Bergamo
Tel. +39 035 468 711
Fax +39 035 611 644

SPETRA S.r.L.
Via Venezia, 14/A
41034 Finale Emilia
Modena
Tel. +39 0535 92 530
Fax +39 0535 93 400

CCE-CONVERTITORI CATALITICI EUROPA S.R.L.
Via Colano 9A/14D
16162 Genova (GE)
Tel. +39 010 726 1653
Fax +39 010 726 1690

JAPAN

KEMIRA-UBE, LTD.
Ube Building
3-11, Higashi-shinagawa
Shinagawa-ku
Tokyo, 140
Tel. +81 3 5460 3365
Fax +81 3 5460 3442

KEMIRA-UBE, LTD.
Ube Plant
2575 Ohaza Fujimagari
Ube-City
Yamaguchi Prefecture 755
Tel. +81 836 353 000
Fax +81 836 352 288

KOREA

KEMIRA CHEMICALS KOREA CORPORATION
Kukje Building 13 th Floor
111, Da-dong, Choong-ku
Seoul, 100-180 Korea
Tel. +82 2 318 3770
Fax +82 2 318 3776

LATVIA

SIA KEMIRA AGRO LATVIJA
Dzirnavu iela 140
702.ist
LV-1050 Riga
Tel. +371 7 212 512
Fax +371 7 830 280

A/S BALTIC COLOR
Kruzes 3
LV-1046 Riga
Tel. +371 7 617 521
Fax +371 7 617 531

BALTIC COLOR
(Business Unit)
Kruzes 3
LV-1046 Riga
Tel. +371 7 613 625
Fax +371 7 610 911

LITHUANIA

UAB KEMIRA AGRO VILNIUS
Smelio 8
2055 Vilnius
Tel. +370 2 709 175
Fax +370 2 709 770

UAB KEMIRA LIFOSA
Juodkiskio 50
LT-5030 Kedainiai
Tel. +370 57 60111
Fax +370 57 60 424

UAB BALTIC COLOR
Sietyno 8
2050 Vilnius
Tel. +370 2 706 413
Fax +370 2 706 414

MALAYSIA

KEMIRA SDN. BHD.
113B (2nd Floor),
Jalan SS 25/2
Taman Bukit Emas
47301 Petaling Jaya
Selangor Darul Ehsan
Tel. +603 705 4181
Fax +603 717 5704

KEMIRA-KUOK FERTILIZERS SDN. BHD.
4th Floor, Kompleks Kemajuan
No. 2 Jalan 19/1B,
Selangor Darul Ehsan
46300 Petaling Jaya
Selangor Darul Ehsan
Tel. +60 3 757 7644
Fax +60 3 757 7670

MEXICO

KEMWATER DE MEXICO, S.A. DE C.V.
Rinkonada Rio Chico No. 9
62290 Cuernavaca, Mor
Tel. 52 73 163 344
Fax 52 73 163 355

NETHERLANDS

KEMIRA CHEMICALS B.V.
P.O. Box 1015
NL-3180 AA Rozenburg
Tel. +31 10 295 2540
Fax +31 295 2536

KEMWATER B.V.
P.O. Box 1015
NL-3180 AA Rozenburg
Tel. +31 181 281 320
Fax +31 181 281 330

KEMAX B.V.
Oosterhorn 4
P.O. Bax 124
NL-9930 AC Delfzijl
Tel. +31 596 647 550
Fax +31 596 648 173

KEMIRA PIGMENTS B.V.
Prof. Gerbrandyweg 2
3197 KK Rotterdam
P.O. Box 1013
NL-3180 AA Rozenburg
Tel. +31 181 246600
Fax +31 181 213169

KEMIRA AGRO ROZENBURG B.V.
Moezelweg 151
P.O. Box 6105
NL-3196 ZG Vondelingenplaat Rt.
Tel. +31 10 295 2911
Fax +31 10 295 2374

KEMIRA AGRO PERNIS B.V.
Vondelingenplaat 17
P.O. Box 6105
NL-3196 ZG Vondelingenplaat Rt.
Tel. +31 10 295 2911
Fax +31 10 295 2374

MULTIRANGE B.V.
P.O. Box 6105
NL-3196 ZG Vondelingenplaat Rt.
Tel. +31 10 295 2911
Fax +31 10 295 2374

KEMIRA COLOR B.V.
P.O. Box 83
Mijlweg 65
NL-3300 AB Dordrecht
Tel. +31 78 652 7599
Fax +31 78 651 0886

WINTER-BOUTS B.V.
P.O. Box 809
NL-6130 AV Sittard
Nusterweg 98
NL-6136 KV Sittard
Tel. +31 46 457 0100
Fax +31 46 457 0150

NORWAY

KEMIRA CHEMICALS AS
Box 1177
N-1631 Gamle Fredrikstad
Tel. +47 69 358 585
Fax +47 69 358 595

KEMIRA CHEMICALS AS
Veritasvn. 1
N-1322 Høvik
Tel. +47 67 565 870
Fax +47 67 565 888

PHILIPPINES

KEMWATER PHIL. CORP.
Chemphil Building,
851 Antonio Arnaiz Avenue,
Legaspi Village,
1229 Makati City
Tel. +63 2 818 8711
Fax +63 2 817 4851

POLAND

KEMIPOL LTD.
ul. Kuznicka 1
72-010 Police
Tel. +48 91 317 3220
Fax +48 91 317 3120

KEMIRA AGRO POLAND Sp. z o.o.
ul. Kaszubska 52
70 226 Szczecin
Tel. +48 91 884 066
Fax +48 91 884 065

TIKKURILA BALTCOLOR Sp. z o.o.
Ul. Ksiedza Kujota 16
70-605 Szczecin
Tel. +48 91 462 4606
Fax +48 91 462 4343

PORTUGAL

ALIADA QUIMICA DE PORTUGAL LTDA
Rua José Falçao 199
4008 Porto
Tel. +351 2 208 1792
Fax +351 2 208 3476

ROMANIA

KEMWATER CRISTAL S.A.
Str. Muncii Nr 14
Fundulea
Calarasi County Cod. 8264
Tel./Fax 40 42 317 141

RUSSIA

ZAO KEMIRA AGRO
p. Koteljniki-1
Ljuberetskij rajon
140053, Moskovskaja oblastj
Tel. +7 095 550 6478

ZAO FINNCOLOR
Pr. 9-go Janvarja, d.15
192289 St. Peterburg
Tel. +7 812 172 6348
Fax +7 812 172 6348

TIKKURILA COATINGS ZAO
Pr. 9-go Yanvarya, d.15
192289 St. Peterburg
Tel. +7 812 101 4413
Fax +7 812 101 4413

SINGAPORE

KEMIRA PIGMENTS ASIA PACIFIC PTE. LTD.
10 Anson Road
International Plaza #33-06A
Singapore 079 903
Tel. +65 227 1757
Fax +65 227 1613

TIKKURILA CPS (SEA) PTE LTD
17 Kian Teck Avenue
Singapore 628902
Tel.+65 898 0400
Fax +65 898 0200

SOUTH AFRICA

WINTER-BOUTS B.V.
P.O. Box 1659
1610 Edenvale
57 Brunton Circle
Founders View South
Edenvale
Tel. +27 11 609 0118
Fax +27 11 609 0559

SPAIN

KEMIRA IBÉRICA, S.A.
Gran Via Corts Catalanes, 641
E-08010 Barcelona
Tel. +34 3 412 3050
Fax +34-3 412 0884

COMERCIAL DE FERTILIZANTES LIQUIDOS S.A.
Avda Alicante, 20
E-46460 Silla (Valencia)
Tel. +34 6 121 05 40
Fax +34 6 120 04 58

SWEDEN

KEMIRA KEMI AB
Box 902
S-251 09 Helsingborg
Tel. +46 42 171 000
Fax +46 42 140 635

ALUFLUOR AB
Box 902
S-251 09 Helsingborg
Tel. +46 42 171 020
Fax +46 42 135 285

KEMWATER NÄRKE AB
Kvarntorp
S-692 92 Kumla
Tel. +46 19 577 200
Fax +46 19 577 353

KEMIRA PIGMENTS AB
Drottninggatan 62
S-252 21 Helsingborg
Tel. +46 42 126 330
Fax +46 42 182 654

DICKURSBY FÄRG AB
Box 3014
Arrendevägen 36
S-163 03 Spånga
Tel. +46 8 598 916 00
Fax +46 8 598 917 00

THAILAND

KEMWATER (THAILAND) CO. LTD
Metro Building
180-184 Rajawongse Road
Bangkok, 10100
Tel. +66 2 622 6461
Fax +66 2 622 6460

KEMIRA THAI CO., LTD
Metro Building, 7th floor
180-184 Rajawongse Road
Bangkok, 10100
Tel. +66 2 226 3871
Fax +66 2 224 5672

TURKEY

KEMWATER DIPER ENV. CHEMICALS A.S.
P.O. Box 42
Kemalpasa
TR-35171 Izmir
Tel. 90 232 877 0281
Fax 90 232 877 0282

UNITED KINGDOM

KEMIRA CHEMICALS (UK) LTD
Orm House
2 Hookstone Park
Harrogate
N Yorkshire HG2 8QT
Tel. +44 1423 885 005
Fax +44 1423 885 939

KEMIRA CHEMICALS (UK) LTD
Kemwater
New Potter Grande Road
MG2 Trading Estate
Goole DN14 6BZ
Tel. +44 1405 765 131
Fax +44 1405 765 147

KEMIRA AGRO U.K. LTD
Ince
Chester CH2 4LB
Tel. +44 151 357 2777
Fax +44 151 357 1755

KEMIRA N.I. LTD
5 Ballygowan Road
Hillsborough
Co. Down BT26 6HX
Tel. +44 1846 682 121
Fax +44 1846 683 189

KEMIRA COATINGS
(Heavy Duty Division)
Warth Mills, Radcliffe Road
Bury
Lancashire BL9 9NB
Tel. +44 161 764 6017
Fax +44 161 764 6102

KEMIRA COATINGS LTD
(Industrial Division)
Kelvin Way
West Bromwich
West Midlands B70 7JZ
Tel. +44 121 525 5665
Fax +44 121 525 4248

KEMIRA SAFETY LTD
Unit 14 B
Harris Business Park
Hanbury Road
Stoke Prior
Bromsgrove B60 4EH
Tel. +44 1527 579 990
Fax +44 1527 579 991

UAE

UNION KEMIRA PLANT
P.O. Box 16938,
Jebel Ali Free Zone
Dubai
Tel. +971 4 815 139
Fax +971 4 815 399

UNITED STATES

KEMIRA PAPER CHEMICALS, INC.
P.O. Box 368
Savannah, GA 31402
Tel. +1 800 688 5992
Fax +1 912 652 1160

KEMIRA PIGMENTS INC.
P.O. Box 368
Savannah, GA 31402
Tel. +1 912 652 1000
Fax +1 912 652 1175

COROB NORTH AMERICA INC.
13315-G Carowinds Blvd.
Charlotte, NC 28273
Tel. +1 704 588 8408
Fax +1 704 588 8471

TIKKURILA INC.
7600 State Road
Philadelphia, PA 19136
Tel. +1 215 335 7331
Fax +1 215 335 7354

URUGUAY

COROB SUDAMERICANA S.A.
Cardal 3092
c.p. 11600
Montevideo
Tel. +598 2 487 0732
Fax +598 2 487 0736


PRODUCTION
SALES

Graphic design and layout by Matti Savimaa, printed by Sävypaino ISO 9002 1999