



essential

Tosoh Corporation and Its Consolidated Subsidiaries  
Fiscal year ended March 31, 2002  
[www.tosoh.com](http://www.tosoh.com)

Annual Report  
2002

# essential

## Profile

Tosoh is a major supplier of inorganic chemicals and petrochemicals that are **essential** to the way we live. From consumer items to optical communications components to basic societal infrastructure, Tosoh supplies products that make an essential difference to modern daily life.

Tosoh was established in 1935 as a manufacturer of caustic soda and soda ash (the name Tosoh is an abbreviation in Japanese of oriental soda). Today, Tosoh ranks as one of Japan's leading chemical manufacturers, with 134 affiliates worldwide and over 9,000 employees in 18 countries. Tosoh is a world provider and a Responsible Care® company. All manufacturing sites have been awarded ISO14001 certification for environmental management.

Its Vinyl Chain operations are the largest in Japan and produce caustic soda, vinyl chloride monomer (VCM), and polyvinyl chloride (PVC) resins. They are integrated with the Company's operations in petrochemicals, which supply commodities such as ethylene, polymers including numerous grades of polyethylene, and precursors for a wide range of organic intermediates.

Over the past decade, Tosoh has expanded into a variety of high-margin specialty products. It has the world's largest production capacity for high-purity zirconia powders and electrolytic manganese dioxide. And it has also become a top global producer of quartz, sputtering targets, and highly sophisticated diagnostic systems.

Tosoh Corporation products are essential to the industries that support modern life—the semiconductor; pharmaceutical, health care and food industries, and many more.

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## SALES BREAKDOWN 2002



**Petrochemical Group**

Olefins  
Polymers



**Basic Group**

Chlor-Alkali  
Cement

## Financial Highlights *Tosoh Corporation and Its Consolidated Subsidiaries*

Years ended March 31,	Millions of Yen						Thousands of U.S. Dollars
	2002*	2001	2000	1999	1998	1997	(Note 1)
<b>Summary of operations:</b>							
Net sales	¥427,487	¥426,174	¥374,182	¥340,229	¥396,475	¥387,343	\$3,208,158
Operating income	15,631	27,565	27,330	7,438	25,103	23,653	117,306
Net income	459	9,392	6,019	533	6,581	6,066	3,445
Basic net income per share (Note 2)	0.77	15.62	10.02	0.89	10.96	10.10	0.01
<b>Financial position at year-end:</b>							
Total assets	¥572,146	¥534,605	¥527,989	¥527,176	¥524,361	¥512,124	\$4,293,779
Short-term bank loans and long-term debt	332,120	325,774	333,180	355,141	340,891	326,547	2,492,457
Total shareholders' equity	90,557	91,195	91,886	89,283	85,283	77,478	679,602
<b>General:</b>							
Capital expenditures	¥16,820	¥18,700	¥27,600	¥34,851	¥34,338	¥37,284	\$126,229
Depreciation and amortization	25,392	24,772	24,854	22,613	23,034	23,157	190,559
Cash dividends per share (Note 2)	5.00	5.00	5.00	3.00	5.00	—	0.04
Number of employees	9,404	8,097	7,914	8,080	8,370	7,330	—
<b>Common stock prices (Note 2):</b>							
High	400	650	531	280	420	470	3.00
Low	195	265	210	148	199	321	1.46
Year-end close	387	305	501	219	259	330	2.90

### Notes:

1. For reference purposes, U.S. dollar amounts are translated from yen, at the rate of ¥133.25 = US\$1, the exchange rate in effect on March 31, 2002.

2. Per share figures and common stock prices are in yen and U.S. dollars.

\* Tosoh Corporation's fiscal year runs from April 1 to March 31 of the following year. Throughout this report, reference to fiscal year 2002 and fiscal 2002 specifies the period from April 1, 2001 to March 31, 2002.



31.3%

### Specialty Group

Organic Chemicals  
Specialty Materials  
Quartz Products  
Scientific Instruments  
Environmental Technology



9.3%

### Service Group

Transportation/Warehousing  
Materials Analysis  
IT Systems  
Services/Systems  
Facilities Maintenance  
Construction

## Message to our shareholders

# from the chairman and CEO

Despite a severe operating environment in fiscal 2002, Tosoh was able to remain marginally profitable while generating some growth in consolidated net sales.

Fiscal 2002 (the year ended March 31, 2002) proved to be a particularly harsh year for the Japanese chemical industry and also for Tosoh. Despite the severe operating environment, we were able to remain marginally profitable while generating some growth in consolidated net sales.

This achievement demonstrates that our drive to transform Tosoh into a value-added chemicals group with a significant presence in specialty products—one that is capable of riding out harshly cyclical conditions in the core chloro-petrochemicals sector—has started to show effectiveness.

We will continue to aim at generating sustained growth, particularly in specialty materials and overseas markets. As China emerges as a powerhouse manufacturer and consumer nation, we are swiftly positioning Tosoh to supply that high-growth market.

In this report I discuss our strategy for achieving consistent earnings growth.

### *Market Conditions in Fiscal 2002*

The year began in anticipation of an economic downturn in the United States that would possibly drag the rest of the world into recession. The U.S. economy started to contract in the second quarter as consumer confidence was weakened. The September 11 terrorist attacks on America had substantial economic, as well as political, repercussions that aggravated the deteriorating situation. Over the entire year, economic growth was low or negative in most major markets worldwide.

In Japan, the recession deepened. Consumer spending remained stagnant as people became concerned about rising unemployment. Exports fell amid the global economic slowdown, and capital investment dropped sharply. The election of a new, reform-minded prime minister, Junichiro Koizumi, spurred hopes that Japan's deep-seated structural problems might be tackled. However, concerns over the scale of the bad debt held by banks and a looming deflationary spiral served to underline the threat of crisis in Japan's financial system. Even in the most optimistic scenario, it will take several years before a solid economic recovery appears.

The Japanese chemical industry was hit hard by deteriorating domestic and overseas economic conditions. Depressed consumer spending and lackluster capital in-

vestment translated into weak demand and falling output for many bulk inorganic chemicals and petrochemicals.

Although the average price of naphtha and other feedstocks fell slightly compared with the previous year, increased ethylene production capacity elsewhere in Asia and in the Middle East put significant pressure on the price level of petrochemical products in the Asian region, substantially reducing profit margins. The global slump across IT-related industries, meanwhile, caused a severe drop in demand for products used in the production of semiconductors and other IT-related industries, such as quartzware, zirconia, and sputtering targets.

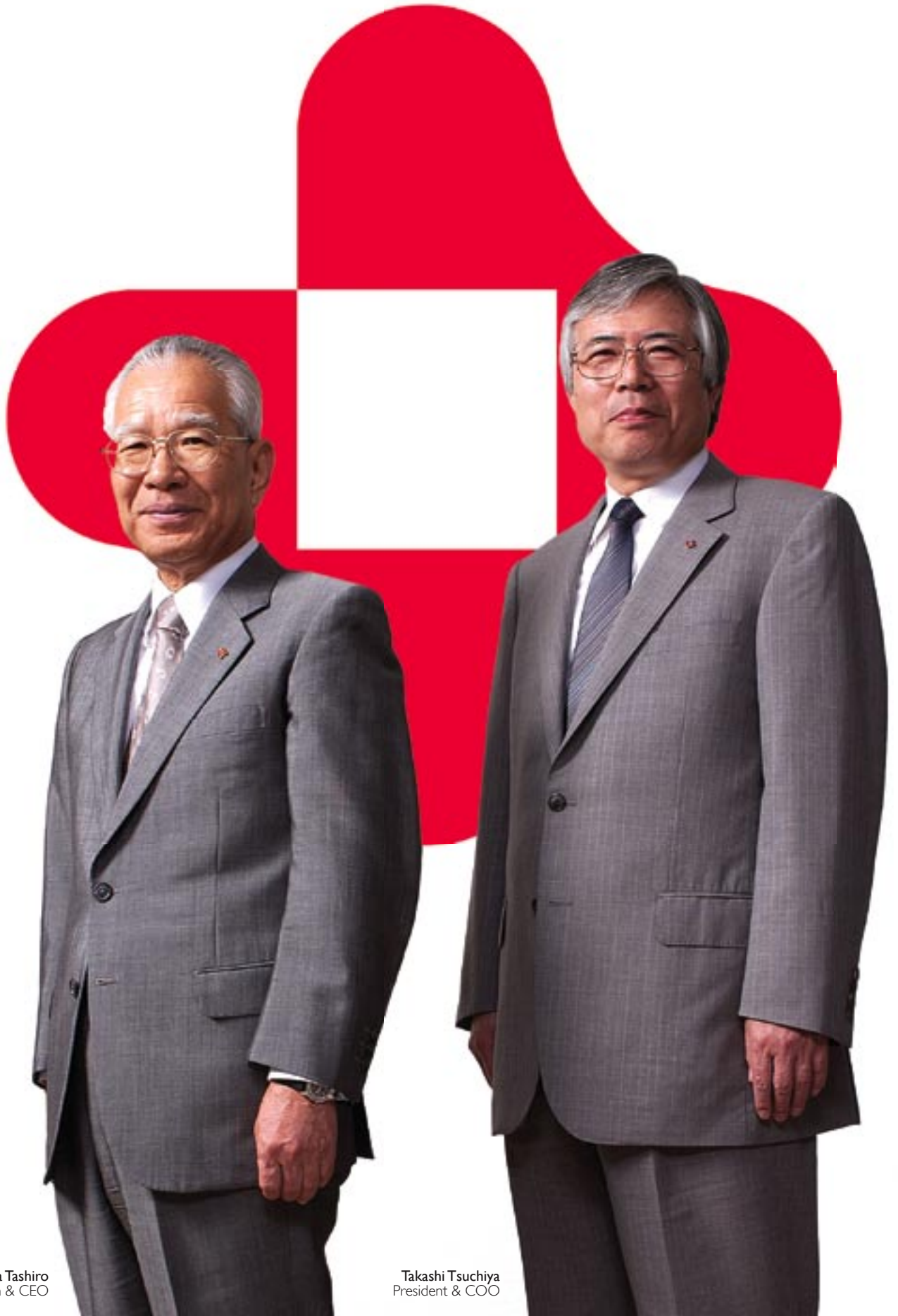
### *Business Results*

Despite the simultaneous deterioration in domestic and international markets in vinyl chloride monomer (VCM) and polyvinyl chloride (PVC), our consolidated net sales crept up 0.3%, to ¥427.5 billion, while our operating income decreased 43.3%, to ¥15.6 billion. Net income however dropped from ¥9.4 billion, to ¥459 million, a year-on-year fall of 95.1%. This decline reflected substantial extraordinary losses, including ¥4.2 billion in charges related to changes in our accounting standards for retirement and severance benefits, and a valuation loss (also ¥4.2 billion) on investment securities holdings.

***“Our strategy is designed to generate earnings growth amid even the harshest conditions and the greatest industry upheaval.”***

Although our profitability was lacking in absolute terms, given the horrendous market conditions that we faced our results testify to the years that we have spent restructuring to lower-cost operations while expanding rapidly into more profitable specialty materials.

Our Vinyl Chain operations possess the economies of scale to enable us to retain a leading position in Asia. In addition, we are a global leader in several niche markets for IT-related products. As these markets grow, we expect those operations to create a stable income.



Madoka Tashiro  
Chairman & CEO

Takashi Tsuchiya  
President & COO

The combined effect of the semiconductor downturn and the collapse of the telecommunications industry affected our business substantially this year and we will continue to bolster all operations to be less susceptible to business cycles.

During the year under review, we continued to strengthen our financial position and to make our operations more cost-competitive. We implemented further permanent reductions in fixed costs, reducing personnel and spinning off selected services and functions. We remain on track to achieve our restructuring objectives. In the last three years, we have eliminated around ¥14 billion from the parent company cost base, out of a target of ¥15 billion. In addition, we have achieved our target of reducing the parent company headcount from over 3,600 at the end of March 1999 to 2,500 two years ahead of the planned date of the end of March 2004.

#### **Positioned for Profitability**

Our strategy over the past few years has been twofold. We have undertaken a variety of restructuring measures to reduce costs and boost operational efficiency. These efforts have made us substantially more competitive under the current harsh conditions. At the same time, we have accelerated a shift toward less cyclical specialty product segments. This has helped us to generate business fundamentals sufficiently strong that we remain profitable amid even the worst market environments.

***“Our vision is of an enterprise that combines strong Asian chloro-petrochemical operations with global specialty operations.”***

We continue to take a selectively critical attitude toward the viability of every part of our business. After objectively assessing prospects, in fiscal 2002 we withdrew from some unprofitable areas and closed plants that could no longer compete. Our optical disk operations and the production of organic intermediates and sodium metal at the Toyama Plant are examples of this strategy.

VCM, chlorine, caustic soda, PVC resins and other polymers, petrochemicals, and inorganic chemicals remain our chief revenue earners. In our Vinyl Chain operations, economies of scale and cost-competitiveness

supported by a strong infrastructure give us an annual production of around a million tons each for VCM, chlorine, and PVC resins in Asia. Providing a competitive edge, our manufacturing complex at Nanyo, in Japan's Yamaguchi Prefecture, is the largest integrated chlor-alkali facility in the region.

Through an increased stake in Nippon Polyurethane Industry (NPU), we are broadening the scope of our Vinyl Chain operations. Integrated processing facilities will supply chlorine for the production of isocyanates at NPU, and reciprocally Tosoh will receive hydrochloric acid gas to be used in the process that converts ethylene dichloride (EDC) to VCM. In this way the Vinyl-Isocyanate Chain serves as the infrastructure for the production of isocyanates (raw materials for polyurethane) while making better use of resources and generating further cost savings. Our efforts to establish PVC production in China are also part of this strategy. We are strengthening our position and building market share in this main pillar of our business.

We are also a world-leading supplier in certain industrial segments where we continue to target global niches. Our strengths lie in ethylene amines (pharmaceuticals, catalysts, and chelating agents); in electrolytic manganese dioxide (alkaline dry-cell batteries); in yttria-stabilized zirconia powders (fiber-optic connectors, among others); and in quartzware and sputtering targets (semiconductor production and flat panel displays). All these areas possess good medium- and long-term growth potential. In addition, we have growing businesses in scientific instruments, including high-performance liquid chromatography (HPLC) systems and automated immunoassay analyzers, and in water purification technology.

#### **Positioned for Growth**

Our strategic emphasis is shifting toward growth. We have made good progress, but still have more to do to secure our restructuring objectives. Although concerned with remaining cost-competitive in our core products, we are also seeking to increase earnings in our dual business portfolio—namely, Vinyl-Isocyanate Chain operations and specialty products.

We identify five major prospective sources of earnings growth. First, since prices for VCM and other Vinyl Chain products have approached historic lows over the past year, we project that they will firm over the mid-term. Second, we are expanding our PVC operations and capacities overseas and positioning ourselves to take advantage of the potential in China. Third, with a recovery in semiconductor and IT-related industries we

expect to generate higher sales volumes across our specialty products businesses in Japan and abroad. Fourth, in line with the trend of global consolidation in specialty niches we are aggressively looking for business opportunities that complement our existing businesses while leveraging our tangible and intangible asset base. Fifth, we continue to generate higher consolidated returns through programs to more tightly integrate the Tosoh Group worldwide. For instance, we are increasing our equity stakes in affiliates and undertaking many less tangible initiatives to leverage intra-divisional synergies.

## ***“We took significant steps during fiscal 2002 to assess the fundamentals for leveraging our foothold in China.”***

Addressing strategy from a geographical perspective, it is evident that Japan may not provide much potential for growth in the near future. We are, therefore, dedicated to achieving growth overseas. We generate more than a quarter of our sales (26.6%) from overseas markets or Japan-based exports and will continue to focus on expansion in specialty products abroad. To that end, we are building a coherent global position in specialty markets. This means building stable, expanding, and profitable global specialty businesses while maintaining an acceptable level of profitability in our other business lines. We will work to secure competitive positions and to broaden our product lines and ranges in strategic markets. The U.S., European, and Asian markets are vital to our future.

China presents a particularly valuable opportunity. The value of the Chinese market to non-Chinese companies' bottom lines has often been hyped. But as a chemicals manufacturer we stand to benefit greatly from China's emergence as a pivotal Asian consumer and low-cost manufacturer. So we took significant steps during fiscal 2002 to assess the fundamentals for leveraging our foothold in China.

### ***Sustainable Development***

At Tosoh, we are dedicated to the ideals of sustainable development. Besides working to reduce chemical emissions and to recycle wastes, we are committed to products and services that can make a contribution in

this area, such as analytical instruments and catalysts that monitor and clean the environment.

As a member of the Japan Responsible Care® Council since 1995, we are proud to place a high priority on the environment, safety, and health. At the center of our growing Eco-Business operations, Organo Corporation—now a consolidated Tosoh subsidiary—retains a global presence in the production and sale of advanced water purification technology and systems. The development of such operations is one of our many goals in Eco-Business operations.

### ***Outlook for Fiscal 2003***

Most economic pundits predict that the United States will emerge from recession before the end of calendar 2002. The downside risks, however, remain considerable. Even if the global economy picks up, the situation in Japan looks unlikely to improve decisively over the coming year. We are, therefore, not hopeful that economic recovery elsewhere will automatically lift our performance.

In this context, we believe that our strategy makes the best sense. It is designed so that we can generate earnings growth amid even the harshest conditions and the greatest industry upheaval. We are focused on adapting rapidly to evolving market conditions. Our strategy is working, and we are confident that we will grow stronger in fiscal 2003.

In closing, I want to thank our shareholders and other stakeholders for their support, now and in the future.

June 2002



**Madoka Tashiro** *Chairman & CEO*

# lifestyle-essential

Tosoh's products are key elements in a wide range of items that are essential to modern lifestyles.

We supply a diversity of chemicals that include commodity lines, such as vinyl chloride monomer, caustic soda, and ethylene, as well as intermediates used in the manufacture of products ranging from pharmaceuticals to semiconductors. We also produce many specialty materials, such as zirconia and quartzware. In addition, we make end products, including diagnostic instruments and scientific equipment, and provide services such as environmental monitoring. Across a broad spectrum, Tosoh is truly lifestyle-essential.

## *Supplier of Lifestyle Essentials*

It is sometimes difficult to grasp the extent to which chemicals are an integral part of our daily lives. The homes we live in, the cars we drive, the products we use—the entire infrastructure of modern society—is made possible by a multitude of different chemicals. Simply because they are so ubiquitous, most of us do not realize the impact these chemicals have on our quality of life.

Take a few simple examples. Detergent bottles are generally made of high-density polyethylene, a product supplied by Tosoh. Alkaline dry-cell batteries contain electrolytic manganese dioxide (EMD), of which Tosoh is the leading global supplier. Cosmetics contain fragrances, stabilizers, and preservatives derived from aromatic compounds, and Tosoh supplies the precursor organic chemicals for these key ingredients. Similarly, many pharmaceuticals are derived from reactions involving ethylene amines or halogenated organic intermediates. Tosoh is one of Asia's leading suppliers of such chemicals. We are also a major supplier of calcium hypochlorite, which is used to treat sewage and to sterilize the water in swimming pools.

Tosoh products are all around you—though you may not immediately recognize their presence or the benefits that they provide. The next time you do the washing, put a battery into an appliance, apply cosmetics, pop a pill, have a glass of tap water, or take a swim at the local sports center, chances are the experience is being enhanced by a Tosoh product.

## *Diverse Product Range*

Tosoh's revenues are balanced between three core areas. The Basic Group manufactures a number of key inorganic and organic commodity chemicals, notably chlorine, caustic soda, VCM, and a wide variety of PVC

resins. A unique oxychlorination process results in superior production efficiencies that have enabled us to retain our position as Asia's leading supplier of VCM, with annual production of over one million tons. Because of economies of scale, Tosoh is one of the dominant chlor-alkali players in Asia. The Basic Group also makes rational and efficient use of energy and raw materials to manufacture cement.

The Petrochemicals Group supplies a broad variety of organic chemicals. They range from feedstock commodities, such as ethylene, cumene, and aromatic compounds, to polymers (mainly ethylene vinyl acetate copolymer resins, polyolefins, and adhesive polymers); synthetic rubber; PVC paste; and engineering plastics. These products are designed for a multitude of end uses, including in electronic materials, cosmetics, agrochemicals, food packaging, and many other household and industrial goods.

The Specialty Group consists of four divisions. The Organic Chemicals Division specializes in the development of value-added fine chemicals, notably ethylene amines, bromine, and their derivatives: polyurethane catalysts, hydrocarbon-based solvents, halogenated organic intermediates, and flame-retardant additives for plastics. The Specialty Materials Division produces EMD, zirconia powders, ceramics, and grinding media, sputtering targets, and zeolites.

The Scientific Instruments Division manufactures clinical diagnostic equipment and systems and is a leading supplier of high-performance liquid chromatography (HPLC) systems and packing materials. The Quartz Division supplies a wide variety of processed quartzware and quartz materials to industries worldwide, notably in the semiconductor and optical communications markets.

## *Multinational Corporation with Global Reach*

Based in Japan, the Tosoh Group operates in 18 countries. We strive hard to build a strong local identity in each market in which we operate. Tosoh's diversity spans a huge variety of products and a multicultural, international workforce of over 9,000 people.

Through our products and our operations, we help to improve the quality of the lives of millions of people the world over.





*Tosoh intermediates are used in cosmetics.*



*Tosoh petrochemicals are the basis for many modern materials.*



*Tosoh makes organic chemicals used in dyes.*



*Tosoh supplies a key ingredient in alkaline dry-cell batteries.*





*Pictured here are the salt mounds of Tosoh's chlor-alkali plant—the largest in Asia.*



*Tosoh's Vinyl Chain operations produce several key chemicals from salt.*



*Essential to consumer goods—everything from plastic tablecloths to playing cards starts with Tosoh salt.*



*Tosoh PVC-based materials are essential for a variety of construction products.*

# industry-essential

Tosoh supplies the basics to a wide variety of industries.

In our Vinyl Chain operations, we create a stream of essential chemicals, including chlorine and PVC, from commodities such as brine and oil. Our Specialty Group spans sectors where we have built up a leading position in Asia, in amines, used as pharmaceutical intermediates, agrochemicals, and chelating agents; in EMD, an ingredient in dry-cell batteries; in zirconia products, with many applications in electronics and optical communications; in quartzware and sputtering targets, for semiconductor production and flat panel displays; and in red phosphorus, added to flame retardants. We supply such essentials to various key industries.

Targeted expansion and selective focus have been strategic themes at Tosoh over the past decade. To improve earnings and reduce the impact of the business cycle on our profitability, we have expanded into areas such as specialty materials, clinical diagnostics, and environmental monitoring services. At the same time, we have tightened our focus in core areas, such as Vinyl Chain operations, where a strong infrastructure and R&D give us a competitive edge.

## Core Competencies and Targeted Industries or Sectors

Following is a survey of our core competencies—industrial sectors with strong growth potential where we are highly competitive at a regional or global level.

### *Vinyl Chain operations for social infrastructure in Asia*

Tosoh is the leading Japanese producer of VCM and PVC, with an annual production capacity of around one million tons each. PVC-based materials are used to manufacture many essential infrastructure items, such as construction materials, pipes, and electric cables. Tosoh's strengths in this sector include high-quality, innovative process technologies and complete vertical integration.

### *Ethylene amines, organic intermediates, bromine for pharmaceuticals, and electronic materials*

Ethylene amines and their derivatives are used in the manufacture of pharmaceuticals and various electronic materials. Tosoh is Asia's leading producer of such amines. We also hold positions in bromine and halogenated organic intermediates and have initiated custom synthesis.

### *Sputtering targets for semiconductors and flat panel displays*

With a global market share higher than 20%, Tosoh is the world's leading producer of such materials. Strong projected growth in worldwide demand is expected to help the Company maintain a lead in this sector.

### *EMD for alkaline dry-cell batteries*

Tosoh's EMD (electrolytic manganese dioxide) manufacturing plants in Japan and Greece have an annual production capacity in excess of 50,000 tons. This translates into a leading global market share of around 20%. EMD is essential in the production of alkaline dry-cell batteries.

### *Zirconia for fiber optics and telecommunications*

Tosoh is the global leader in high-purity yttria-stabilized zirconia products, which include powders, ceramic materials, and grinding media. Because of a variety of superior performance characteristics over metals, zirconia is widely used in optical connector components and biomedical applications.

### *Quartzware for semiconductors*

Tosoh is a major worldwide player in quartz products. With integrated operations in all the major markets, of Japan, the United States, Korea, Taiwan, and Singapore, and a strong reputation in product development, we expect to benefit as the global semiconductor industry recovers.

### *Chromatography gels and diagnostic systems and reagents for pharmaceutical and biotech research and health care*

Tosoh's Scientific Instruments Division is a global supplier of separation gels and packing materials for chromatography applications, such as HPLC. These products are widely used in chemical and biological research by the pharmaceutical and biotech industries, among others. We are also positioning ourselves in the growing market for clinical diagnostic systems, such as automated immunoassay analyzers.

# profit-essential

We recognized early on that restructuring was essential to maintaining cost-competitiveness.

The low growth that continues to plague the domestic economy weighs heavily on the Japanese chemical industry, which faces declining volume demand for many key products. Fresh production capacity has put further pressure on prices and margins, and the industry is in upheaval as a result.

Anticipating deteriorating supply-demand trends, we took decisive action in 1992 to maintain our competitiveness through cost-reduction and debt-lowering programs. We have made steady progress with restructuring, even as we have shifted the emphasis in our product mix toward less cycle-prone market segments. As a result, we are now in a favorable position to sustain superior earnings growth over the mid- to long-term.

## *Essential Changes Implemented*

In 1999, we embarked on a program to lower costs and reduce debt. Our initial restructuring goals for the parent company were to reduce headcount from over 3,600 to 2,500 and interest-bearing liabilities from around ¥275 billion to ¥200 billion in the five-year period ending March 2004. By the end of March 2002, we had already achieved our goal in downsizing personnel, and we had lowered unconsolidated debt to ¥226 billion—on track to meet our target.

We have also worked hard to lower our overhead. Our goal was to slash the annual parent fixed cost base by around ¥15 billion. By the end of fiscal 2002, we had achieved around ¥14 billion of the targeted savings. The cost reductions achieved in the last three years are equivalent to approximately 5% of our unconsolidated sales revenues. As a result, we now possess one of the most competitive cost positions within the Japanese chemical industry.

Alongside cost-cutting initiatives, we streamlined our operations, revising the product mix where necessary to raise efficiency. We withdrew from a number of areas where our scale of production was insufficient to make us competitive. Examples include pigment and dye intermediates, styrene monomer, and magneto-optical (MO) disks. In PVC resins and polypropylene, alliances are helping to improve our cost position. We are strengthening our Vinyl Chain operations through increased synergy with isocyanate production.

In a separate move designed to improve our earnings structure, we adopted a new operating management philosophy. Our aim is to manage Tosoh as a single, consolidated organization. To support this, we have raised our equity stakes in several subsidiaries, affiliates, and joint ventures. Notable examples include Tosoh Quartz, Tosoh Biosep, Tosoh SET, Tosoh Finechem, and F-TECH—five Specialty Group businesses with excellent growth prospects.

Elsewhere, we have taken a majority stake in Taiyo Vinyl Corporation (PVC resin business in Japan) and have increased our equity stakes in Organo Corporation (Eco-Business) and in Nippon Polyurethane Industry (isocyanate derivatives and other polyurethane products). These moves have afforded us greater control in core growth sectors and promise to boost our return on capital. We are also integrating accounting, finance, personnel, and IT systems worldwide to promote efficient consolidated management.



## *Potential Growth Anticipated*


Together with other changes, we have invested selectively to expand our presence in high-margin specialty products. This gives us greater strength through diversity and helps to reduce our exposure to the business cycle. Our R&D efforts are focused on high-growth segments, notably quartz products, electronic materials, organic intermediates, zeolites, zirconia, sputtering targets, new thin-film materials, and biotechnology.


Greater synergy from the increased integration of our global operations is another important source of potential earnings growth. We are realizing opportunities for intra-group cooperation, in, for example, organic intermediates between F-TECH, Tosoh Finechem, and the Organic Chemicals Division.


In America, Europe, and Asia, we are consolidating our local operations to more efficiently use resources. These efforts include maximizing human resources and IT systems through common regional service platforms. This creates solid regional bases for growth.



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*Rigorous cost-cutting  
and restructuring*
  - 

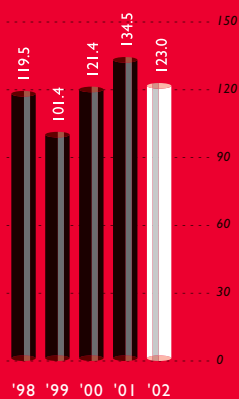
*Heightened consolidated  
management*
  - 

*Selective investment in  
high-margin specialty  
products*
  - 

*Increased global  
operational synergy*

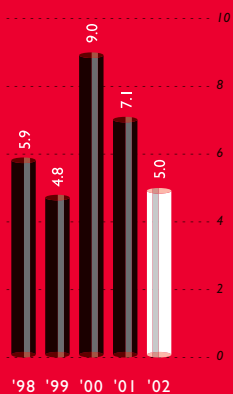
### Net Sales

(Billions of Yen)



### Operating Income

(Billions of Yen)



### FY2002 Review

Petrochemical Group consolidated net sales declined 8.6%, to ¥123.0 billion. Operating income fell 28.8%, to ¥5.0 billion.

#### Olefins

Global demand for basic petrochemicals began to decline sharply in the second quarter of 2001 with the slowdown in the U.S. economy. In Japan, demand slid further amid protracted economic stagnation. The total industry production of base feedstocks, such as ethylene and propylene, fell between 2% and 3% during the year.

Despite buoyant demand in China, Japanese exports also suffered, as low-cost ethylene capacity in Asia and the Middle East came onstream. Naphtha prices eased slightly from the highs recorded at the end of 2000. But the slump in demand and ongoing wholesale price deflation put renewed pressure on Japanese producers to lower their prices. Overall, market conditions remained difficult.

#### Polymers

Domestic demand in most polymer sectors declined slightly, and prices further eroded amid deflationary pressures. IT-related sectors, such as polyphenylene sulfide (PPS) resins, suffered additional significant declines in shipment volumes. This resulted from the precipitate fall in global demand early in the year and subsequent sharp inventory corrections in related supply chains.

Despite substantially increased demand from China, export growth was severely constrained and export prices held down by regional overcapacity. Yen depreciation, meanwhile, failed to stem the growth of imports in such market sectors as polyethylene film products.



Tosoh nonetheless achieved some increases in polymer sales, such as in C9 hydrocarbon resins. The Company, in fact, gained market share in chloroprene rubber, ethyl vinyl acetate (EVA) copolymers, and C9 hydrocarbon resins.

### Strategy & Outlook

#### Olefins

Japan's petrochemical industry faces a persistently unfavorable supply-demand situation. Slack domestic demand, the lack of export price competitiveness, and systemic overcapacity call for industry restructuring.

The naphtha cracker at our Yokkaichi Complex has an annual ethylene production capacity of approximately 500,000 tons. Our strategy for this complex involves "symbiotic reciprocity." We strive to prosper with other petrochemical operations in Yokkaichi. Most of our basic feedstocks are supplied to local customers or shipped to our Nanyo Complex for downstream processing. This cooperative approach maximizes resources and minimizes distribution costs.

DIVISION	MAJOR PRODUCTS/SERVICES	PRINCIPAL SUBSIDIARIES AND AFFILIATES
<b>Olefins</b>	Ethylene; propylene; aromatic hydrocarbons (benzene, toluene, xylene); C4 fraction (raw material for intermediates used in synthetic rubber production, such as butadiene); cumene (raw material for intermediates used in production of phenol and epoxy resins)	<b>Domestic:</b> Nippon Styrene Monomer Co., Ltd.
<b>Polymers</b>	Polyethylene grades (HDPE, LDPE, LLDPE, ULDPPE); ethyl vinyl acetate (EVA) copolymers; adhesive polymers; synthetic rubbers; PVC paste; polyphenylene sulfide (PPS) resins; C9 hydrocarbon resins	<b>Domestic:</b> Hokuetsu Kasei Co., Ltd., Rensol Co., Ltd., Toyo Polymer Co., Ltd., Ace Pack Co., Ltd., Shinomura Chemical Industry Corporation, San-kyo Kasei Industry Corporation

### Polymers

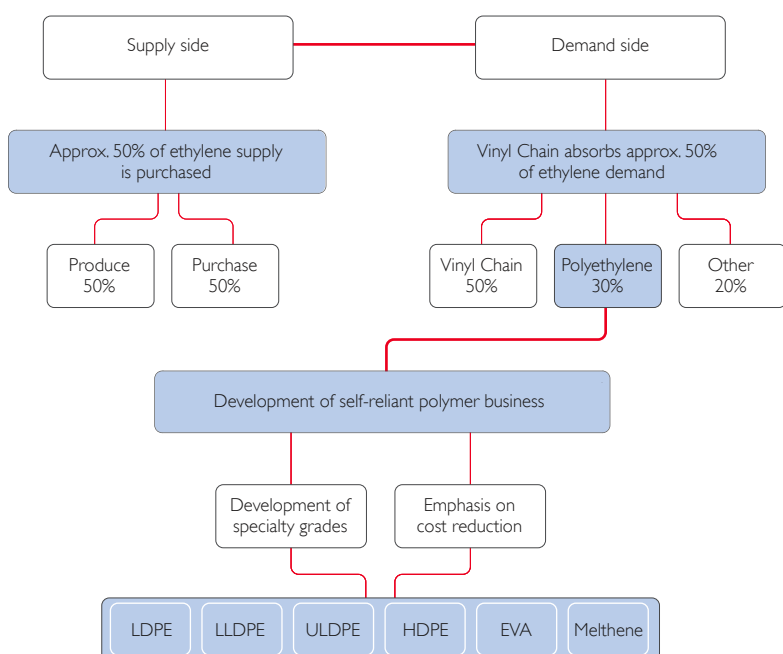
Polymer sectors such as HDPE, where Japanese producers are squeezed by overcapacity, deflation, declining domestic demand, and low-priced imports, face unrelenting pressure. Our strategy is to develop and occupy niche markets that leverage our competitive advantages in production processes and finishing technologies. We also continue to cut costs and to seek alliances to bolster our domestic competitiveness. By adding value with differentiated product grades and by targeting specific segments, we aim to generate stable earnings growth and high margins.

We are among the few producers who supply EVA copolymer resins with 30% or more vinyl acetate (VA). Such high VA grades better resist downward prices and heighten export opportunities. In addition, we are promoting differentiated grades of HDPE for container vessels used with semiconductor production reagents to help boost yields of unused catalysts during chip production. The specialized grades of C9 hydrocarbon resins that we are developing have application as hot-melt adhesives and asphalt additives, among others. And our newly developed processes enable us to produce linear-type PPS resins with superior finishing, adhesive, and thermal properties to branch-type resins.

## Overview of Ethylene Operations

Integrated Vinyl Chain and petrochemical operations make Tosoh unique within the Japanese chemical industry. Tosoh's position as both a purchaser and producer of ethylene helps reduce the exposure of the business to extreme operating conditions. Tosoh's total operational demand for ethylene reaches one million tons a year.

Fifty thousand tons are absorbed by Vinyl Chain operations, and another 30 thousand tons are used for the development of a more self-reliant polymers business in the production of various polyethylene grades. For information and sales networking advantages, this division product portfolio also includes chloroprene rubbers, CSM, PPS, C9 hydrocarbon resins, and PVC paste. The diagram below provides an overview of Tosoh's Ethylene Operations.

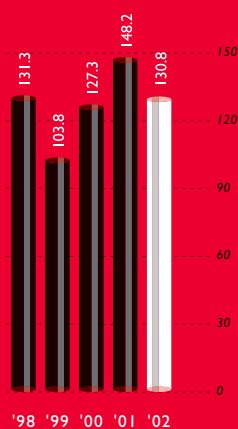


# basic group

## REVIEW OF OPERATIONS

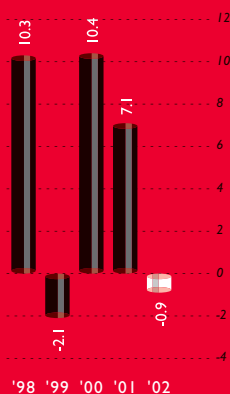
### Net Sales

(Billions of Yen)



### Operating Income

(Billions of Yen)



## FY2002 Review

Basic Group consolidated net sales decreased 11.7%, to ¥130.8 billion. The group recorded an operating loss of ¥0.9 billion, compared with operating profit of ¥7.1 billion the previous year.

### Chlor-Alkali

General chlor-alkali market conditions were the worst since the Asian economic crisis of 1997 and 1998. Domestic demand for major products, such as caustic soda and vinyl chloride monomer (VCM), remained weak amid Japan's ongoing economic stagnation, but the domestic market did absorb around 70% of Tosoh's chlor-alkali output.

Volume demand for VCM and for PVC resins was healthy throughout Asia. However, VCM prices hovered near historic lows most of the year, depressed by economic slowdowns in Japan, the United States, and Europe. VCM prices recovered sharply in the final quarter, soaring almost 50% as demand outstripped supply.

Although profits recovered sharply in the first quarter of fiscal 2002, a poor domestic supply-demand balance and soft export prices were strongly negative for profitability the remainder of the year. The controlling equity stake that Tosoh took in Taiyo Vinyl Corporation in 2000 made possible restructuring measures to reduce fixed and distribution costs and to increase operational efficiency at that company in the interest of improved profitability.

### Cement

Declining public works budgets contributed to a continued drop in public-sector demand for cement in Japan, while private-sector demand failed to revive sufficiently to compensate.

Despite industry consolidation—Chichibu Onoda merged in 1998 to form Taiheiyo Cement, which commands nearly 40% of the Japanese market—idle capacity continues to depress domestic prices. Export prices also remained soft, as global manufacturers increased their presence in Asia.

## Strategy & Outlook

### Chlor-Alkali

The economies of scale and cost efficiencies at the Nanyo Complex—the largest fully integrated chlor-alkali plant in Asia—make Tosoh among Asia's most competitive suppliers of VCM and the largest supplier of VCM and caustic soda in Japan. As Japan's largest purchaser of ethylene, we can secure highly competitive feedstock prices. We also enjoy a quality advantage due to superior processing technology. After three years of capacity expansion, of reducing bottlenecks at plants, and of restructuring, we have combined our formidable scale of production with low-cost operations.

Japanese economic growth is projected to remain lackluster. But mid-term demand trends in the rest of Asia are positive. Infrastructure-related demand in China for VCM and PVC resins is forecast to expand at double-digit annual rates ahead of the 2008 Beijing Olympics. By 2005, China is likely to overtake the United States to become the world's largest market for PVC. Given China's large and persistent domestic supply-demand gap, Tosoh is well placed to benefit as a leading VCM supplier.

Tosoh's aim is to maintain a leading position in China. We are thus in the late planning stages of a market feasibility study for a PVC resin manufacturing plant in China. We are also looking at opening a new production line at our PVC resin plant in the Philippines, Philippine Resins Industries, to supply growing local demand in that country.

In October 2001, Tosoh increased to 35% its stake in Nippon Polyurethane Industry (NPU), a manufacturer of urethane products situated close to the Nanyo Complex. This provides for Tosoh's expansion of its Vinyl Chain to include the production of isocyanates, important raw materials in the manufacture of polyurethane derivatives and related intermediates.



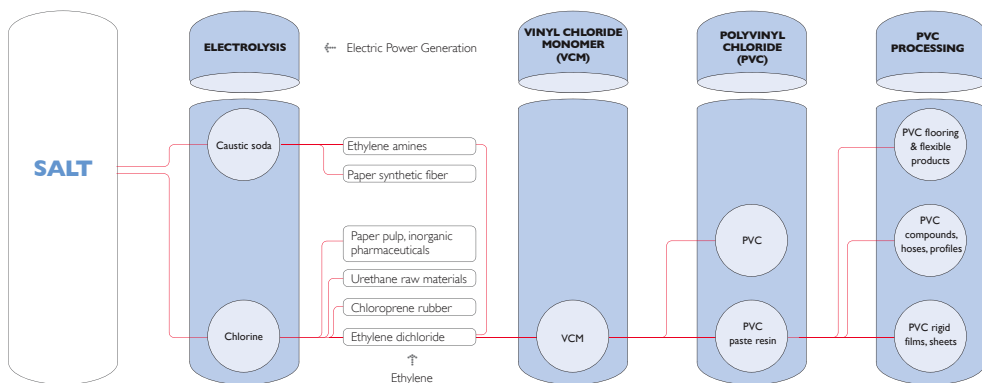
DIVISION	MAJOR PRODUCTS/SERVICES	PRINCIPAL SUBSIDIARIES AND AFFILIATES
<b>Chlor-Alkali</b>	Chlorine, caustic soda, vinyl chloride monomer (VCM), calcium hypochlorite, sodium bicarbonate, PVC resins, soda ash, inorganic chemicals	<p><b>Domestic:</b> Taiyo Vinyl Corporation (PVC resins), Tohoku Tosoh Chemical Co., Ltd. (chlorinated chemicals), Rin Kagaku Kogyo Co., Ltd. (phosphorous compounds), Minami-kyushu Chemical Industry Co., Ltd. (fertilizers), Lonseal Corporation (plastic products), Plas-Tech Corporation (PVC compounds), Taihei Chemicals Limited (PVC films, sheets, nitrocellulose), Tokuyama Sekisui Co., Ltd. (PVC resins), Toei Kasei Co., Ltd. (PVC films, sheets)</p> <p><b>Overseas:</b> General Chemical (Soda Ash) Partners (U.S.A.: soda products), Philippine Resins Industries, Inc. (Philippines: PVC resins), Mabuhay Vinyl Corporation (Philippines: caustic soda and chlorine derivatives), Tosoh Polyvin Corporation (Philippines: PVC compounds), P.T. Standard Toyo Polymer (Indonesia: PVC resins), P.T. Satomo Indovyl Polymer (Indonesia: PVC resins)</p>
<b>Cement</b>	Cement	—

### Cement

Tosoh's Nanyo Complex cement manufacturing operations boast natural deepwater port facilities and a cheap, on-site power source. We also reuse as raw materials the 1.5 million tons of coal ash produced yearly by the power plant boilers. The operations, moreover, yield significant environmental benefits. We contribute to local recycling efforts by consuming a variety of waste products, including over 15,000 tons of used tires yearly and approximately 10 tons of refuse-derived fuel (RDF) daily, a solid fuel produced at a nearby municipal RDF plant. Strong relations with Taiheiyo Cement, Japan's strongest player, ensure stable demand for Tosoh's cement. Our entire cement output is consigned for sale to Taiheiyo. And the strategy is to maintain favorable relations with Taiheiyo Cement while reducing costs and boosting our industrial waste recycling efforts.

## The Strengths of Tosoh's Vinyl Chain Operations

The Vinyl Chain is the name given to a sequence of integrated manufacturing operations that produce several key vinyl-related chemicals from the basic commodities salt and ethylene (see diagram, below). Salt is electrolyzed to yield chlorine and caustic soda. The chlorine is then reacted with ethylene to produce ethylene dichloride (EDC), and the surplus is sold off. EDC—which can be combined with caustic soda to produce ethylene amines, another major Tosoh product—is converted to VCM by means of a proprietary oxychlorination process. Some of the VCM is then converted into various PVC resins, and the rest is sold to other downstream manufacturers.



A high degree of plant integration is required to achieve the necessary process efficiencies. The Nanyo Complex features fully integrated port facilities where 48,000-ton tankers can dock directly and an on-site 675 megawatt power plant capable of generating the power required for salt electrolysis at low cost. The site is also strategically located close to oil refinery and naphtha cracker facilities so that it can benefit from locally supplied ethylene.

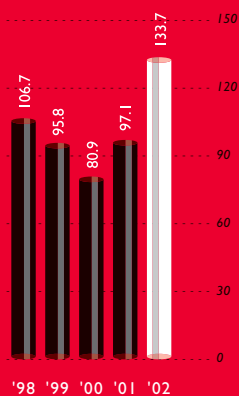
Tosoh is poised to expand its Vinyl Chain by supplying chlorine to NPU (Nippon Polyurethane Industry) for the production of isocyanates and urethane products. During these downstream processes, NPU will produce hydrochloric acid gas, which is pumped back to the Nanyo Complex to be used in the process that converts EDC to VCM. This promises enhanced value by making better use of resources and by generating further cost savings.

# specialty group

## REVIEW OF OPERATIONS

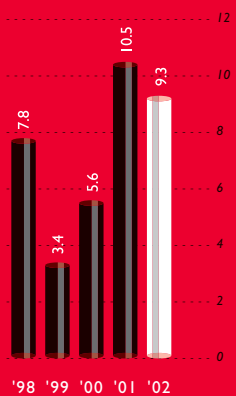
### Net Sales

(Billions of Yen)



### Operating Income

(Billions of Yen)



### FY2002 Review

Specialty Group consolidated net sales increased 37.7%, to ¥133.7 billion. The group's operating income fell 10.7%, to ¥9.3 billion.

#### Organic Chemicals

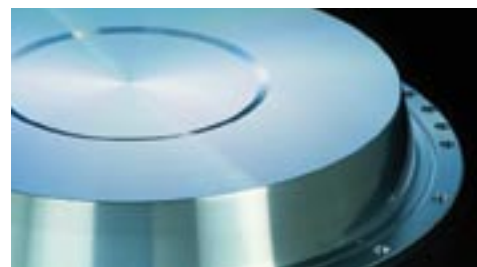
Sales of organic intermediates generated modest growth. Demand, though, for bromine and brominated compounds was weakened by the global slump in IT-related sectors, which hit sales of halogenated chemicals for electronic materials. Demand for ethylene amines proved more resilient, since these chemicals are less dependent on business or silicon cycles. Chelating agents also generated a good performance. But increased imports from China added to downward pricing in some market segments.

#### Specialty Materials

Tosoh's main specialty materials are sputtering targets, used in the production of flat panel displays and semiconductors; zirconia, ceramic materials with applications in telecommunications, fiber optics, and biomedical applications; EMD, a key component in alkaline dry-cell batteries; and zeolites, highly adsorbent materials used in catalysts, drying, and purification applications and as detergent builders. The sharp downturn in IT-related businesses adversely affected sputtering targets and zirconia during the year, particularly in optical components. EMD sales volumes decreased while price competition heightened in Asia because of the market entry of China-based manufacturers. Overall, business conditions proved problematic.

#### Quartz

Tosoh's sales of silica glass materials and quartzware remain exposed to the volatility of the semiconductor industry. With chip manufacturers responding to plunging demand and capacity utilization by slashing investment budgets, sales



of some quartz products dwindled. Consumable items, such as etcher parts and photo mask substrates, were less affected, but the sales of many other products were almost halved, strongly depressing our earnings.

#### Scientific Instruments

The shift toward genome-based drug discovery in pharmaceutical research continued to stimulate global sales of HPLC systems and materials (HPLC is a favored technique for separating and purifying large molecules, such as DNA and proteins). Overseas, demand for TOYOPEARL® packing materials grew strongly. In Japan, Tosoh's market leadership in HPLC columns and packing materials also delivered good results. However, renewed downward pressure on medical costs and reimbursement price levels continued to act as a check on sales of diagnostic systems and reagents.

We launched several new products into high-potential market segments, such as environmental analysis (with the IC-2001 ion chromatography system) and biological macromolecule separation (with the BioAssist® series of HPLC columns). In clinical diagnostics, the previous year's spin-off of our reagent business into a wholly owned subsidiary, Tosoh AIA, began to pay dividends. Production was rationalized, and greater operational integration was achieved by placing the equipment business under Tosoh Hi-Tec. In August 2001, we concluded a marketing alliance with Sysmex Corporation to sell the new HLC-723 G7 automated glycohemoglobin analyzer in leading Asian markets.

DIVISION	MAJOR PRODUCTS/SERVICES	PRINCIPAL SUBSIDIARIES AND AFFILIATES
<b>Organic Chemicals</b>	Ethylene amines and derivatives, bromine, fluorinated and brominated compounds, polyurethane catalysts, intermediates for organic synthesis, flame-retardant materials, solvents, aspartame	<b>Domestic:</b> Tosoh Finechem Corporation (fine chemicals, custom synthesis), Tosoh Organic Chemical Co., Ltd. (organic intermediates), F-TECH, Inc. (fluorochemicals), Nippon Polyurethane Industry Co., Ltd. (urethane products), Hodogaya Chemical Co., Ltd. (fine chemicals, agrochemicals, dyes) <b>Overseas:</b> Delamine B.V. (Netherlands: ethylene amines, fine chemicals), Holland Sweetener Company (Netherlands, U.S.A.: aspartame)
<b>Specialty Materials</b>	Zirconia products (powders, ceramics, grinding media); sputtering targets; shielding products; electrolytic manganese dioxide (EMD); zeolites (adsorption agents, molecular sieves)	<b>Domestic:</b> Tosoh Ceramics Co., Ltd. (zirconia ceramic products), Tosoh Speciality Materials Corp. (sputtering targets), Tosoh Hyuga Corp. (EMD), Tosoh Zeolum Co., Ltd. (zeolites), Nippon Silica Industrial Co., Ltd. (rubber and plastic silica filler) <b>Overseas:</b> Tosoh SMD, Inc. (U.S.A., Taiwan, S. Korea: sputtering targets), Tosoh SET, Inc. (U.S.A.: physical vapor deposition (PVD) and chemical vapor deposition (CVD) shield refurbishment services), Tosoh Hellas A.I.C. (Greece: EMD)
<b>Quartz</b>	Silica glass (quartz) materials, including various types of natural, synthetic, fused, machined, and fabricated quartzware	<b>Domestic:</b> Tosoh Quartz Corp. (fabricated quartzware), Tosoh SGM Corp. (silica glass materials) <b>Overseas:</b> Tosoh Quartz, Inc. (U.S.A., U.K., Taiwan: fabricated quartzware), Tosoh SGM USA, Inc. (silica glass)
<b>Scientific Instruments</b>	HPLC systems and packing materials, enzyme immunoassay systems, ion chromatography systems, glycohemoglobin analyzers	<b>Domestic:</b> Tosoh AIA, Inc. (diagnostic reagents), Tosoh Hi-Tec, Inc. (diagnostic and chromatography products and systems) <b>Overseas:</b> Tosoh Biosep (U.S.A., Germany: liquid chromatography products), Tosoh Medics, Inc. (U.S.A.: clinical diagnostic systems and reagents), Eurogenetics (U.K., Italy, Belgium: clinical diagnostic systems and reagents)
<b>Eco-Business Operations</b> <i>(not a division)</i>	Water purification technology, environmental monitoring analysis and equipment, chelating agents	<b>Domestic:</b> Organo Corporation (water purification systems and engineering services)

## Strategy & Outlook

### Organic Chemicals

Our strategy is to shift the organic chemical product mix into high-margin segments. We will do so by developing high-performance applications and by rationalizing production. Tosoh is Asia's only major manufacturer of ethylene amines and their derivatives. Including the sales of Delamine, a 50:50 joint venture with Dutch firm Akzo Nobel, we rank third in global sales. Ethylene diamine (EDA), one of the main precursor compounds for this broad family of chemicals, is generated from the raw materials ethylene dichloride and caustic soda. Since these are the major products of our Vinyl Chain operations, we enjoy raw material cost advantages.

Ethylene amines have numerous applications, in pharmaceuticals, agrochemicals, epoxy resin additives, and chelating agents for heavy metals. Consequently, volume demand for these compounds in Asia is expected to grow 3% to 4% annually over the mid-term.

Tosoh's organic intermediates business also targets growth segments, notably custom organic synthesis for pharmaceutical and medical research. We are generating greater operational synergies from parent company cooperation with three key subsidiaries that possess cutting-edge technologies: Tosoh Organic Chemical (halogenation), Tosoh Finechem (low-temperature organometallic synthesis), and F-TECH (fluorination). These companies, which all became wholly owned Tosoh subsidiaries during fiscal years 2001 and 2002, give us a technical edge in the development and production of halogenated compounds.

### Specialty Materials

The swing from boom to bust in IT-related markets was mostly unexpected. But by the end of the first quarter of fiscal 2002, inventory reduction had largely run its course in many sectors. Although it may take some time before business investment recovers in some areas—notably optical communications—markets for flat panel displays, semi-conductors, and other IT-related products are expected to start recovering during fiscal 2003. Normalized inventory levels will allow production to rebound toward demand levels.

To reinforce our leading global position in sputtering targets and zirconia, we are investing in extra production capacity and developing a variety of new products in anticipation of a recovery in IT-related investment. U.S. subsidiary Tosoh SMD quadrupled its capacity for 300 millimeter sputtering targets in the first half of 2002.

To reduce our exposure to the silicon cycle, we are also diversifying into new applications in targeted high-growth segments. We have developed zirconia ceramics for use in fuel cells and biomedical applications. As an eco-friendly method of removing volatile organic compounds, our high-silica zeolites are being sold to purify automobile exhaust gases. We have also entered the refurbishment and process kit management market for chemical vapor deposition

(CVD) shielding and related products. In battery materials we are developing new forms of lithium manganate to improve, for example, mobile phone battery performance. As we expand, we continue to reduce costs in our specialty materials businesses to boost our profitability.

#### *Quartz*

We are lessening the dependence of our quartz operations on chip-related product segments. In addition to consumable items for chip processing equipment, we are developing quartzware for growing applications in LCDs, biotechnology, and optical communications. We are also concentrating resources on areas with high-growth potential, notably next-generation 300 millimeter wafer processing and the Chinese market, which is expected to become a center of production in the coming decade.

We possess global brands; an established reputation for quality; localized sales, production, and machining capabilities; and advanced technical expertise arising from our extensive experience with inorganic materials. As such, we are in a good position to benefit once the semiconductor industry recovers.

#### *Scientific Instruments*

Tosoh has a substantial presence in two scientific instrument fields. We are strong in separation and purification gels for use in chromatography, especially HPLC and ion chromatography, and related systems. And we are highly visible in diagnostic systems, specifically automated immunoassay analyzers (AIA), and related reagents. Our strategy is to retain and build on our position in these two niche markets.

Substantial investments are being made worldwide in genomics and proteomics by the pharmaceutical and biotech industries, which bodes well for chromatographic products. And huge potential exists for clinical diagnostic systems for diseases such as diabetes, particularly in Asia. We project that our scientific instruments business can generate



a consolidated recurring profit ratio of 15% over the medium term. In the meantime, we are investing resources to develop products for other emerging high-growth sectors, such as environmental analysis. Our ion and liquid chromatography systems are useful in measuring levels of endocrine hormonal disruptors, a variety of chemicals that are believed to have detrimental effects on human endocrine systems. Demand for such systems is being driven in Japan and other major markets by stricter environmental monitoring legislation.

# service group

## REVIEW OF OPERATIONS

petrochemical  
group  
basic group  
specialty group  
service group

### FY2002 Review

Service Group consolidated net sales declined 13.7%, to ¥40.0 billion, and operating income fell 25.4%, to ¥2.2 billion. The declines were principally due to lower turnover at various Tosoh subsidiaries that provide construction and logistics services. Decreased domestic shipment volumes and reduced capital spending were the cause of that reduced turnover.

### Strategy & Outlook

Logistics, construction, engineering support, and related services constitute a significant part of Service Group operations. The rationale behind their functional separation from the rest of Tosoh's businesses is to enable the cost-efficient concentration of resources and expertise.

Tosoh's analytical chemistry, information technology, and general administrative operations have also been spun off into independent operating companies to provide the most efficient support to the rest of the Company's operations.

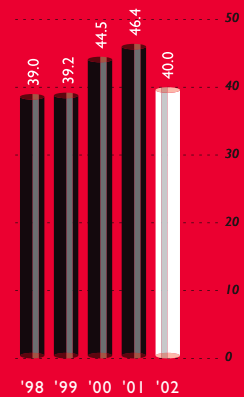
Tosoh Analysis & Research Center (TARC) provides a range of sophisticated analytical services. It specializes in organic, inorganic, and polymer chemistry and in electronic materials. Tosoh Information Systems (TOSIS) is assisting Tosoh Group companies as they upgrade and integrate their accounting systems to implement consolidated group management. Tosoh General Services provides support for personnel management, employee benefit administration, and training activities.



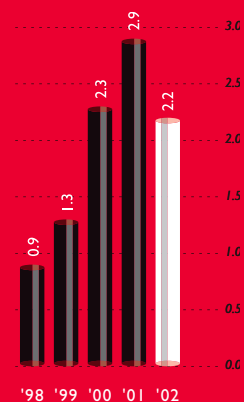
Tosoh's Service Group companies work constantly to improve the quality of their operations. In December 2001, Tosoh Logistics Corporation received ISO9001 certification for its quality control systems at nine sites in Japan. In March 2002, TARC also received ISO9001 certification, for three sites in Japan.

DIVISION	MAJOR PRODUCTS/SERVICES	PRINCIPAL SUBSIDIARIES AND AFFILIATES
Services	Transportation and warehousing, R&D, materials analysis, IT systems development and consulting services and systems and facilities maintenance, construction, plant engineering and maintenance, civil engineering	<b>Domestic:</b> Tosoh Logistics Corp. (transportation, warehousing), Tosoh Analysis & Research Center Co., Ltd. (materials analysis), Tosoh Information Systems Co., Ltd. (IT-related systems and services), Tosoh General Services Co., Ltd. (administration and security services), Tosoh Plant Services Corp. (instrumentation, plant engineering, related services)

Net Sales  
(Billions of Yen)



Operating Income  
(Billions of Yen)







Committed to R&D communication: reorganized for direct control by the president.



Committed to R&D personnel: 800 people employed groupwide.



Committed to R&D development: ¥9.8 billion invested in fiscal 2002.

# research and development

Innovation is the lifeblood of any organization, and Tosoh is no exception.

A committed and consistent long-term approach to research and development has enabled Tosoh to establish leading global positions in specialist areas. We are prominent in electrolytic manganese dioxide, zirconia, sputtering targets, other thin-film materials, and quartz. In fiscal 2002, we invested ¥9.8 billion to establish and maintain our global leadership in vital growth sectors. Approximately 800 Tosoh Group personnel engage in R&D activities. These financial and human resources add value and boost our long-term earnings.

## *New Organization Heightens Strategic Focus and Communication*

Our R&D organization underwent significant reorganization in fiscal 2002. R&D at Tosoh is divided into four areas of focus directly controlled by our president. The aim is to foster greater communication between researchers and top management while sharpening research theme selection. Reorganization already has promoted accountability and boosted effectiveness. Regular conferences now take place at which top managers can question each R&D section about progress.

Specific areas of expertise have also been localized at particular sites. The Tokyo Research Laboratory is responsible for most of the R&D activities underpinning the Specialty Group businesses of electronic materials, IT-related products, diagnostics, and biotechnology. R&D activities related to Vinyl Chain operations, organic and inorganic fine chemicals, and environmental technology are located at the Nanyo Research Laboratory. The Yokkaichi Research Laboratory focuses on advances in polyethylene, catalytic processes, and polymer research, while the Nanyo Technology Center works on process development for various products manufactured at the Nanyo Complex. Collaboration with Tosoh Analysis & Research Center (TARC), which has expertise in analyzing inorganic and other materials, provides additional R&D support for a number of fields.

## *Organic Intermediates and Electronic Materials*

Tosoh's strong domestic presence in chlor-alkali operations has traditionally emphasized inorganic chemicals. The rapid growth of Specialty Group businesses, and the cooperation of three Tosoh Group compa-

nies—Tosoh Organic Chemical, Tosoh Finechem, and F-TECH—that possess innovative technologies in organic chemicals, has focused increased resources on organic intermediates and electronic materials. Tosoh researchers have developed a range of resist monomers, based on organometallic molecular catalyst technology, for use in producing semiconductors. Similar technological expertise has been used to branch into the production of optically active epoxy compounds, a growing area of pharmaceutical intermediates. Advances in electronic materials include the development of new polymers, organic electroluminescent materials, and intermediates used to manufacture displays.

## *Specialty Materials*

R&D continues to drive Tosoh's growth in specialty materials. The aim is to develop commercially relevant, state-of-the-art materials to expand Tosoh's presence in high-growth IT-related fields. As a result of past R&D successes, Tosoh is the only Japanese manufacturer of high-silica zeolites, which are used as automotive exhaust catalysts.

During the year, development was completed on a new high-silica zeolite capable of adsorbing hydrocarbons. It has applications in the removal of unburned fuel and similar impurities from automobile exhaust gases. Research also continues on lithium manganate and related materials to improve cathode function in lithium-ion batteries and on next-generation thin-film and silica glass materials.

## *Diagnostics and Biotechnology*

Tosoh has made clinical diagnostic systems and reagents an R&D priority amid heightened interest in genetic research among biotech and pharmaceutical firms. The sequencing of the human and other genomes holds promise for tailoring drugs to combat specific diseases with a prominent genetic component. Researchers have recently developed new technologies related to gene expression analysis that offer potential to identify and measure clinical disease markers. This research supports Tosoh's deepening involvement in diagnostics, where it already has a strong reputation.

# environmental focus

## Tosoh recognizes its responsibility as a large-scale manufacturer to respect the global environment.

Our three-pillared policy expresses our commitment to action. We seek, first, to protect the environment through the reduction of harmful emissions, the efficient use of energy and resources, and waste recycling initiatives; second, to safeguard the health and safety of employees and local communities through accident prevention and emergency response systems; and, third, to dedicate ourselves to developing safe and environmentally friendly products and production processes. For more information on Tosoh's environmental activities, please access "Environment & Safety" at [www.tosoh.com](http://www.tosoh.com) for our latest Responsible Care® Activities Report.

### **Dedication to Action**

Policy making is part of our activities on behalf of the environment. Since 1995, Tosoh has been a member of the Japan Responsible Care® Council, a group that provides a framework for voluntary environmental action by the Japanese chemical industry. All Tosoh manufacturing sites in Japan have received ISO 14001 environmental certification and submit to regular, third-party audits of their progress in environmental management. We fully support our subsidiaries and affiliates as they go through the ISO 14001 certification process, as was the case with TARC, Tosoh Quartz, and Tosoh Speciality Materials Corporation during fiscal 2002. Our investment in environmental, health, and safety facilities and projects totaled more than ¥15 billion at the end of March 2002.

### **Consistent Reductions in Chemical Emissions**

Our program to reduce harmful emissions, including atmospheric and wastewater emissions, has two specific aims. First, we are reducing emissions of five harmful pollutants: benzene, chloroform, vinyl chloride monomer, 1,2-dichloroethane, and 1,3-butadiene. They belong to a group of 12 substances that the Japanese government has requested Japanese industry take voluntary control of. In fiscal 2002, we recorded total emissions of these five substances of 247 tons, representing an 83% reduction from fiscal 1996. We are on course to achieve our target of a 91% reduction relative to fiscal 1996 by the end of March 2003.

Second, we continue to work to reduce emissions of 31 substances that belong to a group of 354

substances specified in Japan's Pollutant Release and Transfer Register (PRTR) Law. For these compounds, we are required to report any volumes purchased, used, transferred, or emitted as waste where annual emissions exceed 0.1 tons. Our PRTR emissions totaled 1,017 tons in fiscal 2002, a 64% reduction from fiscal 1996. We are also on course to achieve a 90% reduction in PRTR emissions relative to fiscal 1996 by the end of March 2003.

### **Thriving Eco-Business**

Several of our Specialty Group businesses focus on products and services that make a direct contribution to environmental protection. Our amine-based chelating agents help to prevent the discharge of toxic heavy metals from municipal incinerators. Our high-silica zeolites are used in car exhaust systems to filter out volatile organic compounds (VOCs). Our range of high-performance hydrocarbon-based cleaners boast much lower toxicity and volatility than halogenated compounds and are widely used as eco-friendly alternatives in IT-related technical applications.

The Scientific Instruments Division markets a broad range of analytical equipment for environmental monitoring. Organo Corporation, which became a consolidated subsidiary in September 2001, retains a global presence in water purification technology, including the supply of advanced wastewater treatment facilities and related systems.

### **Recycling Activities**

Waste recycling is another way that Tosoh contributes to the environment. In conjunction with the town near our Nanyo Complex in Yamaguchi Prefecture, we participate in recycling operations that convert municipal trash into solid refuse-derived fuel (RDF) pellets. These pellets are used in production by our cement plant at the Nanyo Complex. Even the ash that accumulates from burning RDF pellets is used by the plant as a raw material. The large quantity of trash that can be recycled in this way provides a substantial benefit to the local community and environment.





All Tosoh plants have been awarded ISO14001 certification.



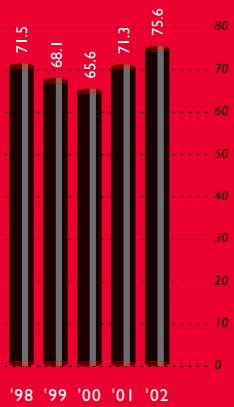
Tosoh recycles 570,000 tons of resources per year.



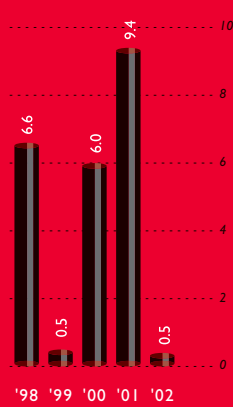
Tosoh is on course to achieve a 90% reduction in PRTR emissions.

# MANAGEMENT'S DISCUSSION AND ANALYSIS

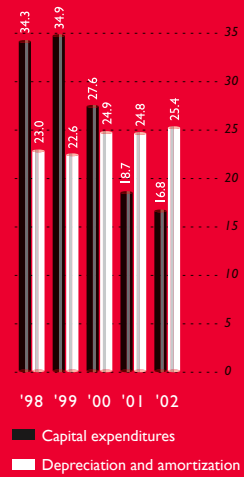
SG&A Expenses  
(Billions of Yen)



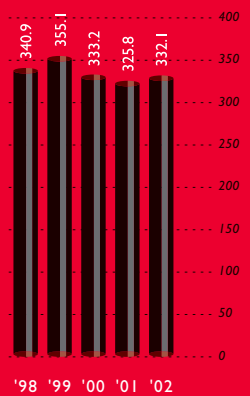
Net Income  
(Billions of Yen)



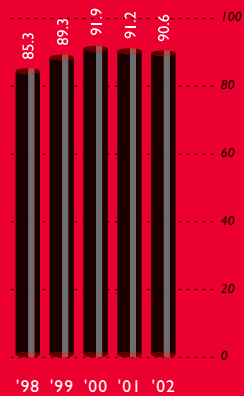
Capital Expenditures and  
Depreciation and Amortization  
(Billions of Yen)



Short-term Bank Loans and  
Long-term Debt  
(Billions of Yen)



Total Shareholders' Equity  
(Billions of Yen)



## Business Overview

### Market Conditions

During the year ended March 31, 2002 (fiscal 2002), the recession deepened in Japan. Concerns about a looming deflationary spiral and the scale of the bad debt held by Japanese banks underlined the ongoing crisis in Japan's financial system. Even optimists concede that it could take several years for economic growth to reemerge. Consumer spending continued to stagnate as the general public worried about rising unemployment. Exports fell amid a global economic slowdown, and capital investment dropped sharply.

Overseas, most markets entered a downturn. A recession in the United States—notably a plunge in demand for IT-related products that precipitated sharp inventory adjustments in global supply chains—dragged down other major economies.

The Japanese chemical industry was hit hard by deteriorating domestic and overseas economic conditions. Depressed consumer spending and lackluster capital investment translated into weak demand and falling output for many bulk inorganic chemicals and petrochemicals.

Although the average price of naphtha and other feedstocks fell compared with the previous year, increased ethylene production capacity elsewhere in Asia and in the Middle East put pressure on Japanese producers.

The global slump in IT-related industries, meanwhile, caused an appreciable drop in demand for products used to produce semiconductors, flat panel displays, and other such items.

Tosoh's core sources of earnings—Vinyl-Isocyanate Chain operations and IT-related specialty products—suffered as the chemical business and silicon cycles hit unexpected troughs. Tosoh experienced losses in Japan and abroad due to depressed demand and historically low prices for VCM and PVC resins. The IT-related slump had particularly harsh repercussions for Specialty Group sales and earnings, especially in quartz, zirconia, sputtering targets, and EMD.

### Significant Events

Management executed various equity increases within the Basic and Specialty group company portfolios to more tightly control and to ultimately generate greater group synergy worldwide. To expand its Vinyl Chain operations, Tosoh raised its equity stake in Nippon Polyurethane Industry, a leading supplier of isocyanates

to the polyurethane industry, and in Philippines Resins Industries, a producer of PVC resins. Organo Corporation was consolidated within the Specialty Group following an increase in Tosoh's equity stake, to 40.7%, while F-TECH and Tosoh SMD Korea became wholly owned Specialty Group subsidiaries.

Management also oversaw improvements in production capacity during fiscal 2002. In Japan, Tosoh completed a plant specializing in the production of silica (white carbon) for fuel-efficient tires and doubled production for red phosphorus, a flame-control additive, to 700 tons per year. Overseas, the Company opened a quartz fabrication plant in Taiwan.

In addition, management continued to assess the viability of its business divisions. Tosoh decided to withdraw from some unprofitable areas and to close uncompetitive plants. Optical disk operations were terminated, and the production of organic intermediates and metallic soda at the Toyama Plant was phased out. This restructuring resulted in the transfer of operations from the Toyama Plant to three Specialty Group companies: Tosoh Zeolum, Tosoh AIA, and Tosoh Ceramics.

### Net Sales

Consolidated net sales rose 0.3%, to ¥427.5 billion (\$3.2 billion). This largely represented the compensatory effect of the consolidation of Organo Corporation and other subsidiaries, which helped to offset lower parent company sales in several areas. Minus those consolidations, net sales would have declined approximately 9%.

Petrochemical Group sales fell 8.6%, to ¥123.0 billion (\$923 million). Basic Group sales declined 11.7%, to ¥130.8 billion (\$982 million). Specialty Group sales grew 37.7%, to ¥133.7 billion (\$1,003 million)—largely due to the contribution of Organo Corporation. And Service Group sales declined 13.7%, to ¥40.0 billion (\$300 million).

Overseas sales—defined as export sales and sales outside Japan by overseas subsidiaries—totaled ¥113.9 billion (\$855 million). At 26.6%, this was the same proportion of consolidated net sales as recorded in fiscal 2001.

## Costs & Expenses

### Operating Expenses

Harsh market conditions contributed to a 2.7% rise in the cost of sales, which increased ¥9.0 billion, to ¥336.3 million (\$2.5 billion). The cost of sales ratio deteriorated from 76.8% to 78.7%.

rated from 76.8% to 78.7%.

Despite contributions from restructuring and cost-reduction programs, selling, general and administrative (SG&A) expenses increased ¥4.3 billion, or 6.0%, to ¥75.6 billion (\$567 million). This was primarily due to the consolidation of Organo Corporation and other subsidiaries. The ratio of SG&A expenses to sales increased from 16.7% to 17.7%.

Consolidated R&D expenditures totaled ¥9.8 billion (\$74 million). This represented an increase of approximately 3% relative to the previous year.

The average, 13.1% depreciation of the yen against the dollar relative to fiscal 2001 generated a mildly positive effect. Gains from exports and the translation of overseas sales into yen outweighed increases in raw material costs, most of which are denominated in dollars. The average cost of Japan-produced naphtha, a key raw material, fell 7.1% relative to fiscal 2001. The net positive effect of this was marginal.

### Capital Expenditures and Depreciation

Tosoh Group capital investment during fiscal 2002 totaled ¥16.8 billion (\$126 million). Management's policy is to keep capital investment within the scope of depreciation. Depreciation and amortization expenses increased slightly, rising ¥0.6 billion, or 2.5%, to ¥25.4 billion (\$191 million). Management expects depreciation expenses of a similar level in fiscal 2003.

## Earnings

### Operating Income

Higher growth in the cost of sales, at 2.7%, relative to net sales, at 0.3%, produced a fall in gross profit of ¥7.7 billion, or 7.7%, to ¥91.2 billion (\$685 million). Accordingly, the gross profit margin slipped from 23.2% to 21.3%. Combined with the increase in SG&A expenses, this resulted in a fall in consolidated operating income of ¥11.9 billion, or 43.3%, to ¥15.6 billion (\$117 million).

The operating profit margin fell from 6.5% to 3.7%. Without the various consolidations in fiscal 2002, the corresponding fall in our consolidated operating profit margin would have been approximately 49%.

All of Tosoh's business segments recorded lower operating income for fiscal 2002 compared with the previous year. The Basic Group, however, suffered the largest decline, posting a loss of ¥0.9 billion (\$6.8 million). The Petrochemical Group, Specialty Group, and Service Group posted operating income of ¥5.0

billion (\$38 million), ¥9.3 billion (\$70 million), and ¥2.2 billion (\$16 million), respectively. This was equivalent to year-on-year declines of 28.8%, 10.7%, and 25.4%, respectively.

Earnings before interest, tax, depreciation and amortization declined ¥13.5 billion, or 27.1%, to ¥36.4 billion (\$273 million). The EBITDA margin fell from 11.7% to 8.5%.

#### **Nonoperating Income and Expenses**

Interest and dividend income at Tosoh fell when compared to fiscal 2001. We also recorded a lower foreign exchange gain. In addition, declining performance at affiliated companies resulted in a significant drop in the equity earnings of our unconsolidated subsidiaries and affiliates. Overall, we experienced a ¥1.5 billion (\$11 million) reduction in nonoperating income compared with the previous year. This was partially offset by reduced interest expense, which declined ¥0.8 billion amid Japan's low interest rates. Higher miscellaneous nonoperating expenses and decreased revenues from other nonoperating income items resulted in net nonoperating expense of ¥4.5 billion (\$34 million) in fiscal 2002 compared with ¥2.6 billion in fiscal 2001. Ordinary income (income before extraordinary items, taxes, and minority interests), therefore, fell 55.6%, to ¥11.1 billion (\$83 million).

#### **Net Income, Extraordinary Items**

Loss on revaluation of investment securities increased substantially, to ¥4.2 billion (\$31 million), principally because of a significant fall in the Japanese stock market in fiscal 2002. The absence or elimination in fiscal 2002 of various gains from sales of fixed assets, shares in affiliates, or securities that had been contributed to the employee retirement benefit trust in the previous year furthered our aggregate extraordinary losses.

The effect, however, of our fiscal 2001 adoption of a new accounting standard for retirement and severance benefits resulted in an accounting charge of ¥4.2 billion (\$32 million) in fiscal 2002. Since this charge was smaller than the ¥11.2 billion posted in fiscal 2001, our net extraordinary losses in fiscal 2002 declined only slightly. This accounting charge represents the amortization of unfunded benefit obligations in the previous year. Management expects to post similar accounting charges each year through fiscal 2005.

Income before income taxes fell ¥13.4 billion, or 82.5%, to ¥2.8 billion (\$21 million). Significantly lower income taxes and an increase in deferred taxes resulted in net income of ¥459 million (\$340 million), a 95.1% drop from the year before. Net income per share was ¥0.77 (\$0.01), compared with ¥15.62 in fiscal 2001, while our return on equity (ROE) slumped from 10.3% to 0.5%.

## **Financial Position**

#### **Assets**

Current assets increased to ¥235.9 billion (\$1,770 million), a rise of ¥30.5 billion, or 14.9%, over the previous year. This increase was due primarily to significant increases in cash and cash equivalents; inventories, most of which were accounted for by the work-in-process method; and deferred tax assets. Trade receivables, less an allowance for doubtful accounts, rose 3.6%, to ¥121.4 billion (\$911 million).

Total investments declined 16.5%, to ¥53.8 billion (\$404 million), primarily as a result of lower investments in and advances to unconsolidated subsidiaries and affiliates. Property, plant and equipment, less accumulated depreciation, increased 4.8%, to ¥259.2 billion (\$1,945 million). Total assets rose to ¥572.1 billion (\$4,294 million), an increase of ¥37.5 billion, or 7.0%, over the previous year. At fiscal 2002 year-end, our net assets per share amounted to ¥151.8 (\$114).

#### **Liabilities**

Current liabilities decreased 2.2% year on year, to ¥253.6 billion (\$1,903 million). This was primarily due to a drop in the current maturities of long-term debt, which fell 37.6%, to ¥44.1 billion (\$331 million). That drop, in turn, was partially offset by an increase in short-term bank loans, of ¥10.4 billion, or 10.3%, and a decline in income taxes payable. Trade payables increased 10.6%, to ¥59.1 billion (\$443 million).

The favorable changes in current assets and liabilities produced a significant decrease in our working capital deficit, which declined ¥36.2 billion, or 67.1%, to ¥17.7 billion (\$133 million). Negative working capital is largely attributable to the ongoing expansion of Tosoh Group business.

Long-term debt, less current maturities, increased 14.6% year on year, to ¥176.6 billion (\$1,325 million). This reflected an increase in long-term debt at the consolidated level because of the inclusion of new subsidiaries. Tosoh Corporation, meanwhile, reduced its net short-term bank loans and long-term debt approximately ¥14.3 billion, to ¥225.8 billion (\$1,695 million), in fiscal 2002. Management is promoting ongoing debt-reduction programs at the parent and consolidated levels.

At fiscal 2002 year-end, the increases in short-term bank loans and long-term debt resulted in a net increase in interest-bearing debt of ¥6.3 billion, or 1.9%, to ¥332.1 billion (\$2,492 million). Partly as a result of increases in minority interests and retirement and severance benefits, total liabilities and minority interests increased to ¥481.6 billion (\$3,614 million), a rise of ¥38.2 billion, or 8.6%, relative to the previous year.

#### **Shareholders' Equity and Dividends**

Shareholders' equity at fiscal 2002 year-end had decreased 0.7%, to ¥90.6 billion (\$680 million). This was mainly due to lower retained earnings, which declined ¥1.8 billion, or 6.5%, largely because of dividend payments—totaling ¥3.0 billion (\$23 million), or ¥5.0 (\$0.04) per share—that exceeded net income. An equity deduction of ¥1.3 billion (\$9.8 million) also resulted from the consolidation of Organo Corporation because of the parent company stock held by a consolidated subsidiary. These effects were offset by foreign currency translation adjustments. And the shareholders' equity ratio declined from 17.1% to 15.8%.

#### **Cash Flows**

Positive free cash flow was achieved during the year, primarily through tighter credit control and the effects of the consolidation of Organo Corporation and other subsidiaries. The net increase in cash and cash equivalents equaled ¥8.3 billion (\$63 million). Free cash flow for the year rose ¥16.0 billion, or 123.4%, to ¥29.0 billion (\$218 million). The effect of exchange rate changes on cash and cash equivalents was positive

and totaled ¥374 million (\$2.8 million).

Net cash provided by operating activities increased 21.5%, to ¥39.4 billion (\$296 million). This was mainly due to improvements in trade receivables. Trade receivables decreased ¥31.6 billion in fiscal 2002, compared with an increase of ¥15.1 billion the previous year. Together with a loss on revaluation of investment securities amounting to ¥4.2 billion (\$31 million), these improvements outweighed the net cash outflows stemming from reduced income before income taxes, higher income taxes paid, lower interest expense, and a decrease in trade payables.

Net cash used in investing activities decreased 46.7%, to ¥10.4 billion (\$78 million). This was mainly attributable to a cash inflow of ¥5.0 billion (\$37 million) following the purchase of newly consolidated subsidiaries, compared with a cash outflow of ¥6.9 billion in the previous year. The difference principally reflected greater cash holdings at the subsidiaries consolidated in fiscal 2002.

Net cash used in financing activities totaled ¥21.1 billion (\$158 million), an increase of 56.8% over the previous year. This mainly reflected cash dividends paid and increased repayments of long-term debt, which outweighed the effects of increased proceeds from long-term debt.

#### **Disclaimer on Forward-Looking Statements**

The statements contained in this report are based on the current reasonable expectations of Tosoh Corporation management. Plans, estimates, forecasts, projections, and any opinions stated with regard to business or financial performance in the year ending March 2003 and beyond constitute forward-looking statements. Such statements are subject to a wide range of variables that could cause forecasts and actual results to differ. These include, but are not limited to, fluctuations in prices, exchange rates, interest rates, share prices, and other market variables; changes in business-related expenses; market, credit, environmental, and other financial or business risks; and changes in the business operating climate or in the legal and regulatory environment.

# CONSOLIDATED STATEMENTS OF INCOME

Tosoh Corporation and Its Consolidated Subsidiaries  
Years ended March 31, 2002 and 2001

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2002	2001	2002
<b>Revenues:</b>			
Net sales (Note 13).....	¥427,487	¥426,174	\$ 3,208,158
Interest and dividend income.....	440	910	3,302
Foreign exchange gain.....	1,141	1,310	8,563
Gain on sales of affiliated company.....	—	3,252	—
Equity in earnings of unconsolidated subsidiaries and affiliates.....	919	1,782	6,897
Gains on securities contributed to the employee retirement benefit trust.....	—	2,689	—
Amortization of prior service cost (Note 9).....	2,028	—	15,219
Other income.....	2,426	4,101	18,206
<b>Total.....</b>	<b>434,441</b>	<b>440,218</b>	<b>3,260,345</b>
<b>Costs and expenses:</b>			
Cost of sales (Note 13).....	336,266	327,296	2,523,572
Selling, general and administrative expenses (Note 13).....	75,590	71,313	567,280
Interest expense.....	6,726	7,480	50,477
Loss on revaluation of investment securities.....	4,156	622	31,189
Effect of adopting new accounting standard for retirement and severance benefits (Note 9).....	4,231	11,156	31,752
Other expenses.....	4,637	6,150	34,799
<b>Total.....</b>	<b>431,606</b>	<b>424,017</b>	<b>3,239,069</b>
<b>Income before income taxes.....</b>	<b>2,835</b>	<b>16,201</b>	<b>21,276</b>
<b>Income taxes:</b>			
Current.....	4,479	8,635	33,613
Deferred (Note 12).....	(2,115)	(1,878)	(15,872)
<b>Minority interests.....</b>	<b>(12)</b>	<b>(52)</b>	<b>(90)</b>
<b>Net income.....</b>	<b>¥ 459</b>	<b>¥ 9,392</b>	<b>\$ 3,445</b>
<b>Per share of common stock:</b>			
Net income per share.....	¥0.77	¥15.62	\$0.01
Cash dividends, applicable to the year.....	5.00	5.00	0.04

The accompanying notes are an integral part of these statements

# CONSOLIDATED BALANCE SHEETS

Tosoh Corporation and Its Consolidated Subsidiaries  
Years ended March 31, 2002 and 2001

Assets	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2002	2001	2002
<b>Current assets:</b>			
Cash and cash equivalents.....	¥ 25,881	¥ 17,534	\$ 194,229
Marketable securities (Note 6).....	229	587	1,719
Trade receivables, less allowance for doubtful accounts (Note 4).....	121,359	117,114	910,762
Inventories (Note 5).....	69,117	57,518	518,702
Deferred tax assets (Note 12).....	5,185	3,198	38,912
Other current assets.....	14,148	9,429	106,175
<b>Total current assets.....</b>	<b>235,919</b>	<b>205,380</b>	<b>1,770,499</b>
<b>Investments:</b>			
Investment securities (Notes 6 and 8).....	15,989	18,141	119,992
Investments in affiliates.....	27,957	34,650	209,809
Long-term loans receivable.....	1,361	1,775	10,214
Other.....	8,524	9,908	63,970
<b>Total investments.....</b>	<b>53,831</b>	<b>64,474</b>	<b>403,985</b>
<b>Property, plant and equipment less accumulated depreciation (Notes 7 and 8).....</b>	<b>259,151</b>	<b>247,363</b>	<b>1,944,848</b>
<b>Other assets:</b>			
Deferred tax assets (Note 12).....	13,951	9,719	104,698
Intangible and other assets.....	9,294	7,669	69,749
<b>Total other assets.....</b>	<b>23,245</b>	<b>17,388</b>	<b>174,447</b>
<b>Total assets.....</b>	<b>¥ 572,146</b>	<b>¥ 534,605</b>	<b>\$ 4,293,779</b>

The accompanying notes are an integral part of these statements

Liabilities and Shareholders' Equity	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2002	2001	2002
<b>Current liabilities:</b>			
Short-term bank loans (Note 8).....	¥ 111,441	¥ 101,067	\$ 836,330
Current maturities of long-term debt (Note 8).....	44,117	70,672	331,084
Trade payables.....	59,050	53,395	443,152
Income taxes payable.....	1,105	5,428	8,293
Other current liabilities.....	37,913	28,683	284,526
Total current liabilities.....	253,626	259,245	1,903,385
<b>Long-term liabilities:</b>			
Long-term debt, less current maturities (Note 8).....	176,562	154,035	1,325,043
Retirement and severance benefits (Note 9).....	27,933	20,950	209,629
Other liabilities.....	2,948	3,910	22,124
Total long-term liabilities.....	207,443	178,895	1,556,796
Total liabilities.....	461,069	438,140	3,460,181
<b>Minority interests.....</b>	<b>20,520</b>	<b>5,270</b>	<b>153,996</b>
<b>Contingent liabilities (Note 10)</b>			
<b>Shareholders' equity:</b>			
Common stock:			
Authorized—1,200,000,000 shares; Issued—601,161,912 shares in 2002 and 2001.....	40,634	40,634	304,946
Additional paid-in capital.....	29,637	29,637	222,417
Retained earnings.....	26,436	28,277	198,394
Net unrealized holding losses on securities.....	(249)	(755)	(1,869)
Foreign currency translation adjustments.....	(4,582)	(6,597)	(34,386)
Treasury stock, at cost, 58,682 shares in 2002 and 3,654 shares in 2001.....	(17)	(1)	(128)
Parent company stock held by a consolidated subsidiary, 4,402,195 shares in 2002.....	(1,302)	—	(9,772)
Total shareholders' equity.....	90,557	91,195	679,602
Total liabilities, minority interests and shareholders' equity.....	¥ 572,146	¥ 534,605	\$ 4,293,779

# CONSOLIDATED STATEMENTS OF CASH FLOWS

Tosoh Corporation and Its Consolidated Subsidiaries  
Years ended March 31, 2002 and 2001

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2002	2001	2002
<b>Cash flows from operating activities:</b>			
Income before income taxes .....	¥ 2,835	¥ 16,201	\$ 21,276
Adjustments to reconcile income before income taxes to net cash provided by operating activities:			
Depreciation and amortization .....	25,927	25,419	194,574
Gains for securities contributed to the employee retirement benefit trust .....	—	3,770	—
Increase in retirement and severance benefits .....	672	3,757	5,043
Interest and dividend income .....	(440)	(910)	(3,302)
Interest expense .....	6,726	7,480	50,477
Equity in earnings of unconsolidated subsidiaries and affiliates .....	(919)	(1,782)	(6,897)
Loss on revaluation of investment securities .....	4,156	622	31,189
Gain on sales of investments in subsidiaries and affiliates .....	—	(3,241)	—
(Increase) decrease in trade receivables .....	31,602	(15,068)	237,163
(Increase) decrease in inventories .....	3,130	(2,827)	23,490
Increase (decrease) in trade payables .....	(16,945)	11,190	(127,167)
Other, net .....	(1,484)	1,565	(11,137)
	55,260	46,176	414,709
Interest and dividends received .....	1,013	1,202	7,602
Interest paid .....	(6,961)	(7,362)	(52,240)
Income taxes paid .....	(9,918)	(7,599)	(74,431)
Net cash provided by operating activities .....	39,394	32,417	295,640
<b>Cash flows from investing activities:</b>			
Payments for purchase of property, plant and equipment .....	(16,476)	(18,935)	(123,647)
Proceeds from sale of property, plant and equipment .....	2,085	1,679	15,647
Purchases of investment securities .....	(3,794)	(3,033)	(28,473)
Purchases of newly consolidated subsidiaries (Note 3) .....	4,954	(6,927)	37,178
Proceeds from sales of investment securities .....	1,642	7,680	12,323
Other, net .....	1,228	113	9,216
Net cash used in investing activities .....	(10,361)	(19,423)	(77,756)
<b>Cash flows from financing activities:</b>			
Net increase (decrease) in short-term bank loans .....	(1,432)	8,671	(10,747)
Proceeds from long-term debt .....	61,780	37,236	463,640
Repayments of long-term debt .....	(77,672)	(56,508)	(582,904)
Cash dividends paid .....	(3,489)	(3,028)	(26,184)
Proceeds from issuance of common stock to minority shareholders .....	—	229	—
Other, net .....	(247)	(32)	(1,854)
Net cash used in financing activities .....	(21,060)	(13,432)	(158,049)
Effect of exchange rate changes on cash and cash equivalents .....	374	229	2,807
Net increase (decrease) in cash and cash equivalents .....	8,347	(209)	62,642
Cash and cash equivalents at beginning of year .....	17,534	17,700	131,587
Increase in cash and cash equivalents due to newly consolidated subsidiaries .....	—	43	—
Cash and cash equivalents at end of year .....	¥ 25,881	¥ 17,534	\$ 194,229

The accompanying notes are an integral part of these statements



# CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Tosoh Corporation and Its Consolidated Subsidiaries  
Years ended March 31, 2002 and 2001

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2002	2001	2002
<b>Common stock:</b>			
Balance at beginning of period .....	¥ 40,634	¥ 40,609	\$ 304,946
Shares issued in exchange of stocks .....	—	25	—
Balance at end of period .....	40,634	40,634	304,946
<b>Additional paid-in capital:</b>			
Balance at beginning of period .....	29,637	29,495	222,417
Shares issued in exchange of stocks .....	—	142	—
Balance at end of period .....	29,637	29,637	222,417
<b>Retained earnings:</b>			
Balance at beginning of period .....	28,277	21,784	212,210
Net income for the year .....	459	9,392	3,445
Cash dividends paid at ¥5.00 per share .....	(3,006)	(3,003)	(22,559)
Bonuses paid to directors and statutory auditors .....	(90)	(86)	(675)
Increase (decrease) due to increase in consolidated subsidiaries .....	868	(107)	6,513
Other .....	(72)	297	(540)
Balance at end of period .....	26,436	28,277	198,394
<b>Net unrealized holding gains (losses) on securities:</b>			
Balance at beginning of period .....	(755)	—	(5,666)
Net increase (decrease) .....	506	(755)	3,797
Balance at end of period .....	(249)	(755)	(1,869)
<b>Foreign currency translation adjustments:</b>			
Balance at beginning of period .....	(6,597)	—	(49,508)
Net increase (decrease) .....	2,015	(6,597)	15,122
Balance at end of period .....	(4,582)	(6,597)	(34,386)
<b>Treasury stock:</b>			
Balance at beginning of period .....	(1)	(2)	(8)
Net increase (decrease) .....	(16)	1	(120)
Balance at end of period .....	(17)	(1)	(128)
<b>Parent company stock held by a consolidated subsidiary:</b>			
Balance at beginning of period .....	—	—	—
Increase due to increase in consolidated subsidiaries .....	(1,302)	—	(9,772)
Balance at end of period .....	¥ (1,302)	—	\$ (9,772)

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tosoh Corporation and Its Consolidated Subsidiaries

## **I. BASIS OF PRESENTING FINANCIAL STATEMENTS**

Tosoh Corporation (the "Company") and its consolidated domestic subsidiaries maintain their accounts and records in accordance with the provisions set forth in the Japanese Commercial Code and the Securities and Exchange Law and in conformity with accounting principles and practices generally accepted in Japan ("Japanese GAAP"). The accounts of consolidated overseas subsidiaries are based on their accounting records maintained in conformity with generally accepted accounting principles and practices prevailing in the respective countries of domicile. Certain accounting principles and practices generally accepted in Japan are different from International Accounting Standards and standards in other countries in certain respects as to application and disclosure requirements. Accordingly, the accompanying financial statements are intended for use by those who are informed about Japanese accounting principles and practices.

The accompanying consolidated financial statements are a translation of the audited consolidated financial statements of the Company which were prepared in accordance with Japanese GAAP from the accounts and records maintained by the Company and its consolidated subsidiaries (the "Companies") and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Securities and Exchange Law.

In preparing the accompanying consolidated financial statements, certain reclassifications have been made in the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan.

The translations of the Japanese yen amounts into U.S. dollars are included solely for the convenience of readers outside Japan, using the prevailing exchange rate at March 31, 2002, which was ¥133.25 to U.S. \$1.00. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be converted into U.S. dollars at this or any other rate of exchange.

## **2. SUMMARY OF ACCOUNTING POLICIES**

### ***Consolidation and investments***

The consolidated financial statements include the accounts of the Company and its significant subsidiaries. All significant intercompany transactions and accounts have been eliminated in the consolidation.

Investments in unconsolidated subsidiaries and affiliates are, with minor exceptions, accounted for by the equity method. Equity in earnings of unconsolidated subsidiaries and affiliates has been calculated by excluding unrealized intercompany profits.

In the elimination of investments in subsidiaries, the assets and liabilities of the subsidiaries, including the portion attributable to minority shareholders, are evaluated using the fair value at the time the Company acquired control of the respective subsidiaries.

### ***Translation of foreign currencies***

Receivables and payables denominated in foreign currencies are translated into Japanese yen at the year-end rates.

Financial statements of consolidated overseas subsidiaries are translated into Japanese yen at the year-end rate, except that shareholders' equity accounts are translated at historical rates and income statement items resulting from transactions with the Company at the rates used by the Company.

### ***Cash and cash equivalents***

Cash, readily-available deposits and short-term highly liquid investments with original maturities of three months or less are considered cash and cash equivalents.

### ***Securities***

Securities are classified into one of the following categories based on the intent of holding, resulting in the different measurement and accounting for the changes in fair value. Held-to-maturity debt securities are stated at amortized cost. Equity securities issued by subsidiaries and affiliated companies, which are not consolidated or accounted for using the equity method, are stated at moving-average cost. Available-for-sale securities with available fair market values are stated at fair market value. Unrealized gains and unrealized losses on these securities are reported, net of applicable income taxes, as a separate component of shareholders' equity. Other available-for-sale securities with no available fair market values are stated at moving-average cost.

Declines in fair market value or the net asset value of held-to-maturity debt securities, equity securities, not on the equity method, issued by unconsolidated subsidiaries and affiliated companies, and available-for-sale securities, judged to be other than temporary, are charged to income.

### ***Allowance for doubtful accounts***

The Companies provide the allowance for doubtful trade receivables by individually estimating uncollectible amounts and for normal receivables based on the Companies' historical experience of write-offs of such receivables.

### ***Inventories***

Inventories are principally valued at cost as determined by the weighted average method.

### ***Property, plant and equipment and depreciation***

Property, plant and equipment are stated at cost. Depreciation is principally computed over the estimated useful lives of the assets on the straight-line basis. Repairs, maintenance and minor renewals are charged to expense as incurred.

### **Lease transactions**

Finance leases, except those leases for which the ownership is considered to be transferred to the lessee, are accounted for as operating leases.

### **Retirement and severance benefits**

The Companies provide two types of post-employment benefit plans, unfunded lump-sum payment plans and funded contributory pension plans, under which all eligible employees are entitled to benefits based on the level of wages and salaries at the time of retirement or termination, length of service and certain other factors.

The Companies provided allowance for employees' retirement and severance benefits at March 31, 2001 and 2002 based on the estimated amounts of projected benefit obligation, actuarially calculated using certain assumptions, and the fair value of the plan assets at that date.

Net transition obligation is recognized as expense using the straight-line method primarily over 5 years commencing with the year ended March 31, 2001.

The amount of "Amortization of net transition obligation" for the year ended March 31, 2001 includes market value of investment securities contributed to the employee retirement benefit trust of ¥6,459 million.

Prior service cost is recognized as expense (income) as incurred.

Actuarial gain (loss) is recognized as expense (income) using the straight-line method over 10 years commencing in the following period.

### **Income taxes**

The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

### **Shareholders' equity**

The maximum amount that the Company can distribute as dividends is calculated based on the unconsolidated financial statements of the Company in accordance with the Japanese Commercial Code.

### **Bonuses to directors and statutory auditors**

Bonuses to directors and statutory auditors are subject to approval by the shareholders and are accounted for by an appropriation of retained earnings.

### **Amounts per share**

Net income per share is computed based upon the weighted average number of shares of common stock outstanding during the period.

### **Reclassifications**

Certain reclassifications have been made in the 2001 financial statements to conform to the 2002 presentation.

## **3. CONSOLIDATED STATEMENTS OF CASH FLOWS**

For the years ended March 31, 2002 and 2001, at the time of acquiring shares of newly consolidated subsidiaries, their assets and liabilities, the cost for the share acquisition, and the net expenditures to acquire the shares were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Current assets.....	<b>¥ 58,760</b>	¥ 4,681	<b>\$ 440,976</b>
Non-current assets.....	<b>29,336</b>	5,424	<b>220,158</b>
Consolidation difference.....	<b>1,979</b>	3,386	<b>14,852</b>
Current liabilities.....	<b>(42,122)</b>	(3,176)	<b>(316,113)</b>
Non-current liabilities.....	<b>(18,487)</b>	(1,158)	<b>(138,739)</b>
Minority interest.....	<b>(15,801)</b>	—	<b>(118,582)</b>
Parent's interest at the time of acquisition.....	<b>(10,770)</b>	(1,982)	<b>(80,826)</b>
Cost for share acquisition.....	<b>2,895</b>	7,175	<b>21,726</b>
Cash and cash equivalents.....	<b>(7,849)</b>	(248)	<b>(58,904)</b>
Purchases of newly consolidated subsidiaries.....	<b>¥ (4,954)</b>	¥ 6,927	<b>\$ (37,178)</b>

## **4. ALLOWANCE FOR DOUBTFUL ACCOUNTS**

Trade receivables have been reduced by allowances for doubtful accounts of ¥585 million (\$4,390 thousand) and ¥553 million, as of March 31, 2002 and 2001, respectively.

## 5. INVENTORIES

Inventories as of March 31, 2002 and 2001 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Finished products.....	¥ 39,380	¥ 36,462	\$ 295,535
Raw materials and supplies.....	19,041	17,192	142,897
Work-in-process.....	10,696	3,864	80,270
Total.....	¥ 69,117	¥ 57,518	\$ 518,702

## 6. MARKET VALUE INFORMATION OF SECURITIES

The following tables summarize acquisition costs, book values and fair values of securities with available fair values as of March 31, 2002 and 2001.

(1) Held-to-maturity debt securities:

	Millions of Yen					
	2002			2001		
	Book value	Fair value	Difference	Book value	Fair value	Difference
Total.....	¥ 163	¥ 162	¥ (1)	¥ 197	¥ 197	¥ —

	Thousands of U.S. Dollars		
	2002		
	Book value	Fair value	Difference
Total.....	\$ 1,223	\$ 1,215	\$ (8)

(2) Available-for-sale securities:

	Millions of Yen					
	2002			2001		
	Acquisition cost	Book (fair) value	Difference	Acquisition cost	Book (fair) value	Difference
Securities with book values exceeding acquisition costs.....	¥ 4,577	¥ 5,585	¥ 1,008	¥ 3,706	¥ 4,573	¥ 867
Securities with book values not exceeding acquisition costs....	7,464	6,061	(1,403)	12,517	10,447	(2,070)
Total.....	¥ 12,041	¥ 11,646	¥ (395)	¥ 16,223	¥ 15,020	¥ (1,203)

	Thousands of U.S. Dollars		
	2002		
	Acquisition cost	Book (fair) value	Difference
Securities with book values exceeding acquisition costs.....	\$ 34,349	\$ 41,914	\$ 7,565
Securities with book values not exceeding acquisition costs....	56,015	45,486	(10,529)
Total.....	\$ 90,364	\$ 87,400	\$ (2,964)

## 7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment as of March 31, 2002 and 2001 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Land.....	¥ 77,360	¥ 67,316	\$ 580,563
Buildings and structures.....	154,984	139,287	1,163,107
Machinery and equipment.....	506,305	492,058	3,799,662
Construction in progress.....	4,520	4,466	33,921
	743,169	703,127	5,577,253
Less accumulated depreciation .....	(484,018)	(455,764)	(3,632,405)
Net property, plant and equipment.....	¥ 259,151	¥ 247,363	\$ 1,944,848

## 8. SHORT-TERM BANK LOANS AND LONG-TERM DEBT

Short-term bank loans (partially secured) bore interest at weighted average annual rates of 1.15% and 1.79% as of March 31, 2002 and 2001, respectively. Such loans are generally renewable at maturity.

Long-term debt as of March 31, 2002 and 2001 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Loans from banks and other financial institutions, 2.07 % maturing serially through 2022:			
Secured .....	¥ 29,801	¥ 37,045	\$ 223,647
Unsecured .....	180,962	187,662	1,358,064
Convertible bonds, 2.20% maturing serially through 2004:			
Unsecured .....	9,916	—	74,416
	<b>220,679</b>	224,707	<b>1,656,127</b>
Less current maturities.....	<b>(44,117)</b>	(70,672)	<b>(331,084)</b>
Total.....	<b>¥ 176,562</b>	¥ 154,035	<b>\$ 1,325,043</b>

Assets pledged as collateral to secure short-term bank loans and long-term debt as of March 31, 2002 and 2001 were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Property, plant and equipment .....	¥ 155,439	¥ 167,354	\$ 1,166,521
Investment securities.....	174	1,284	1,306
Other .....	446	535	3,347
Total.....	<b>¥ 156,059</b>	¥ 169,173	<b>\$ 1,171,174</b>

The annual maturities of long-term debt as of March 31, 2002 were as follows:

	Millions of Yen	Thousands of U.S. Dollars
2003 .....	¥ 44,117	\$ 331,084
2004 .....	69,523	521,749
2005 .....	35,263	264,638
2006 .....	22,755	170,769
2007 and thereafter.....	49,021	367,887
Total.....	¥ 220,679	\$ 1,656,127

## 9. RETIREMENT AND SEVERANCE BENEFITS

The liability for retirement and severance benefits at March 31, 2002 was as follows:

	Millions of Yen	Thousands of U.S. Dollars
Projected benefit obligation .....	¥ 108,683	\$ 815,633
Fair value of pension assets.....	(51,580)	(387,092)
Unfunded benefit obligation .....	57,103	428,541
Unrecognized net transition obligation .....	12,679	95,152
Unrecognized actuarial loss .....	16,491	123,760
Retirement and severance benefits.....	<b>¥ 27,933</b>	<b>\$ 209,629</b>

Retirement benefit costs for the year ended March 31, 2002 were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Service costs.....	¥ 2,995	\$ 22,477
Interest costs on projected benefit obligation.....	3,056	22,934
Expected return on pension assets.....	(1,426)	(10,702)
Amortization of net transition obligation .....	4,231	31,752
Amortization of actuarial loss.....	589	4,420
Amortization of prior service cost.....	(2,028)	(15,219)
Retirement and severance benefits costs.....	<b>¥ 7,417</b>	<b>\$ 55,662</b>

- Notes: 1. The discount rate and the rate of expected return on pension assets used by the Companies are 3.0% and 3.5%, respectively.  
2. The estimated amount of all retirement benefits to be paid at the future retirement dates is allocated equally to each service year using the estimated number of total service years.

## 10. CONTINGENT LIABILITIES

Contingent liabilities primarily for loans from banks to unconsolidated subsidiaries and affiliates which are guaranteed by the Company and for notes receivable discounted at banks with recourse as of March 31, 2002 were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Loans guaranteed.....	<b>¥15,793</b>	<b>\$ 118,522</b>
Notes receivable discounted.....	<b>1,065</b>	<b>7,992</b>
Total.....	<b>¥16,858</b>	<b>\$ 126,514</b>

## 11. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING TRANSACTIONS

The Companies use interest rate swaps only for the purpose of mitigating future risks of interest rate fluctuations with respect to borrowings.

The Companies also use foreign currency forward exchange contracts only for the purpose of mitigating future risks of exchange rate fluctuations with respect to foreign currency denominated forecasted transactions.

## 12. INCOME TAXES

The Company and its consolidated domestic subsidiaries are subject to a number of income taxes, which, in the aggregate, indicate a statutory rate in Japan of approximately 41.7% for the years ended March 31, 2002 and 2001.

The following table summarizes the significant differences between the statutory tax rate and the Companies' effective tax rate for financial statement purposes for the year ended March 31, 2002.

March 31,	2002
Statutory tax rate.....	41.7%
Increase (reduction) in taxes resulting from:	
Non-taxable dividend income.....	(2.0)
Non-deductible expenses.....	18.1
Amortization of consolidation difference.....	12.8
Equity in earnings of unconsolidated subsidiaries and affiliates .....	7.1
Other.....	5.7
Effective tax rate.....	83.4%

Since the difference between the statutory tax rate and the Companies' effective tax rate for the year ended March 31, 2001 is immaterial, the information for 2001 is not presented.

Significant components of deferred tax assets and liabilities as of March 31, 2002 and 2001 were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2002	2001	2002
Deferred tax assets			
Operating loss carryforwards.....	<b>¥ 2,477</b>	¥ 2,221	<b>\$ 18,589</b>
Unrealized gains on intercompany transactions .....	<b>6,964</b>	6,826	<b>52,263</b>
Retirement and severance benefits .....	<b>12,028</b>	9,221	<b>90,266</b>
Other.....	<b>6,048</b>	4,085	<b>45,389</b>
Total gross deferred tax assets .....	<b>27,517</b>	22,353	<b>206,507</b>
Less valuation allowance .....	<b>(959)</b>	(1,665)	<b>(7,197)</b>
Total deferred tax assets .....	<b>26,558</b>	20,688	<b>199,310</b>
Deferred tax liabilities:			
Reserve for replacement of property, plant and equipment.....	<b>(4,123)</b>	(4,542)	<b>(30,942)</b>
Reserve for special depreciation of fixed assets.....	<b>(1,622)</b>	(1,820)	<b>(12,172)</b>
Other.....	<b>(2,932)</b>	(2,660)	<b>(22,004)</b>
Total deferred tax liabilities.....	<b>(8,677)</b>	(9,022)	<b>(65,118)</b>
Net deferred tax assets.....	<b>¥17,881</b>	¥ 11,666	<b>\$ 134,192</b>

### 13. SEGMENT INFORMATION

The operations of the Companies are classified into four business segments—Petrochemical Group, Basic Group, Specialty Group and Service Group.

Operations of the Petrochemical Group include the manufacture and sale of olefins and polymers.

Operations of the Basic Group include the manufacture and sale of caustic soda, vinyl chloride monomer, polyvinyl chloride and cement.

Operations of the Specialty Group include the manufacture and sale of fine chemicals, scientific and diagnostic instruments and systems, electronics, metals, quartz, water treatment equipment and specialty materials.

Operations of the Service Group include transportation, warehousing and construction.

"Operating expenses" used in the following segment information include cost of sales and selling, general and administrative expenses.

Business segment information was as follows:

Year ended March 31, 2002	Millions of Yen						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and Corporate	Consolidated
Net sales:							
Outside customers .....	¥ 123,001	¥ 130,819	¥ 133,666	¥ 40,001	¥ 427,487	¥ —	¥ 427,487
Inter-segment .....	37,852	10,089	6,649	47,127	101,717	(101,717)	—
Operating expenses .....	155,809	141,816	130,976	84,972	513,573	(101,717)	411,856
Operating income .....	¥ 5,044	¥ (908)	¥ 9,339	¥ 2,156	¥ 15,631	¥ —	¥ 15,631
Identifiable assets .....	¥ 99,638	¥ 143,217	¥ 222,384	¥ 44,071	¥ 509,310	¥ 62,836	¥ 572,146
Depreciation and amortization .....	¥ 4,539	¥ 10,151	¥ 8,369	¥ 1,386	¥ 24,445	¥ 947	¥ 25,392
Capital expenditures .....	¥ 1,796	¥ 4,111	¥ 9,560	¥ 925	¥ 16,392	¥ 428	¥ 16,820

Year ended March 31, 2001	Millions of Yen						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and Corporate	Consolidated
Net sales:							
Outside customers .....	¥ 134,549	¥ 148,203	¥ 97,055	¥ 46,367	¥ 426,174	¥ —	¥ 426,174
Inter-segment .....	40,474	9,841	4,773	46,944	102,032	(102,032)	—
Operating expenses .....	167,939	150,908	91,373	90,421	500,641	(102,032)	398,609
Operating income .....	¥ 7,084	¥ 7,136	¥ 10,455	¥ 2,890	¥ 27,565	¥ —	¥ 27,565
Identifiable assets .....	¥ 112,299	¥ 161,358	¥ 145,254	¥ 52,317	¥ 471,228	¥ 63,377	¥ 534,605
Depreciation and amortization .....	¥ 4,990	¥ 10,233	¥ 7,183	¥ 1,382	¥ 23,788	¥ 984	¥ 24,772
Capital expenditures .....	¥ 2,758	¥ 4,787	¥ 7,931	¥ 1,157	¥ 16,633	¥ 2,067	¥ 18,700

Year ended March 31, 2002	Thousands of U.S. Dollars						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and Corporate	Consolidated
Net sales:							
Outside customers .....	\$ 923,084	\$ 981,756	\$ 1,003,123	\$ 300,195	\$ 3,208,158	\$ —	\$ 3,208,158
Inter-segment .....	284,068	75,715	49,898	353,674	763,355	(763,355)	—
Operating expenses .....	1,169,298	1,064,285	982,935	637,689	3,854,207	(763,355)	3,090,852
Operating income .....	\$ 37,854	\$ (6,814)	\$ 70,086	\$ 16,180	\$ 117,306	\$ —	\$ 117,306
Identifiable assets .....	\$ 747,753	\$ 1,074,799	\$ 1,668,923	\$ 330,739	\$ 3,822,214	\$ 471,565	\$ 4,293,779
Depreciation and amortization .....	\$ 34,064	\$ 76,180	\$ 62,807	\$ 10,401	\$ 183,452	\$ 7,107	\$ 190,559
Capital expenditures .....	\$ 13,478	\$ 30,852	\$ 71,745	\$ 6,942	\$ 123,017	\$ 3,212	\$ 126,229

Export sales and sales outside of Japan made by overseas subsidiaries were ¥113,916 million (\$854,904 thousand) and ¥113,415 million for the years ended March 31, 2002 and 2001, respectively, representing 26.6% and 26.6% of consolidated net sales. For the years ended March 31, 2002 and 2001, such sales in Asia were ¥69,129 million (\$518,792 thousand) and ¥74,556 million, representing 16.2% and 17.5%, respectively, of consolidated net sales.

The "Elimination and Corporate" column of "Identifiable assets" in the above schedules includes corporate assets of ¥79,918 million (\$599,760 thousand) and ¥82,939 million for the years ended March 31, 2002 and 2001, respectively, which mainly consist of cash, time deposits, investment in securities and assets of administrative departments.

Geographic information for the years ended March 31, 2002 and 2001 were as follows:

Year ended March 31, 2002	Millions of Yen			Elimination and Corporate	Consolidated
	Japan	Other	Total		
Net sales:					
Outside customers .....	<b>¥ 380,707</b>	<b>¥46,780</b>	<b>¥ 427,487</b>	<b>¥ —</b>	<b>¥ 427,487</b>
Inter-segment.....	<b>12,938</b>	<b>2,102</b>	<b>15,040</b>	<b>(15,040)</b>	<b>—</b>
Operating expenses.....	<b>379,586</b>	<b>47,310</b>	<b>426,896</b>	<b>(15,040)</b>	<b>411,856</b>
Operating income .....	<b>¥ 14,059</b>	<b>¥ 1,572</b>	<b>¥ 15,631</b>	<b>¥ —</b>	<b>¥ 15,631</b>
Identifiable assets.....	<b>¥ 466,480</b>	<b>¥49,580</b>	<b>¥ 516,060</b>	<b>¥ 56,086</b>	<b>¥ 572,146</b>

Year ended March 31, 2001	Millions of Yen			Elimination and Corporate	Consolidated
	Japan	Other	Total		
Net sales:					
Outside customers .....	¥ 384,766	¥ 41,408	¥ 426,174	¥ —	¥ 426,174
Inter-segment.....	11,346	3,291	14,637	(14,637)	—
Operating expenses.....	371,330	41,916	413,246	(14,637)	398,609
Operating income .....	¥ 24,782	¥ 2,783	¥ 27,565	¥ —	¥ 27,565
Identifiable assets.....	¥ 432,348	¥ 43,914	¥ 476,262	¥ 58,343	¥ 534,605

Year ended March 31, 2002	Thousands of U.S. Dollars			Elimination and Corporate	Consolidated
	Japan	Other	Total		
Net sales:					
Outside customers .....	<b>\$ 2,857,088</b>	<b>\$351,070</b>	<b>\$ 3,208,158</b>	<b>\$ —</b>	<b>\$ 3,208,158</b>
Inter-segment.....	<b>97,095</b>	<b>15,775</b>	<b>112,870</b>	<b>(112,870)</b>	<b>—</b>
Operating expenses.....	<b>2,848,675</b>	<b>355,047</b>	<b>3,203,722</b>	<b>(112,870)</b>	<b>3,090,852</b>
Operating income.....	<b>\$ 105,508</b>	<b>\$ 11,798</b>	<b>\$ 117,306</b>	<b>\$ —</b>	<b>\$ 117,306</b>
Identifiable assets.....	<b>\$ 3,500,788</b>	<b>\$372,083</b>	<b>\$ 3,872,871</b>	<b>\$ 420,908</b>	<b>\$ 4,293,779</b>

#### 14. SUBSEQUENT EVENTS

At the general shareholders' meeting of the Company held on June 27, 2002, retained earnings of the Company as of March 31, 2002 were appropriated as follows:

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends (¥5.00 per share) .....	<b>¥3,006</b>	<b>\$ 22,559</b>



# REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Shareholders and the Board of Directors of Tosoh Corporation:

We have audited the accompanying consolidated balance sheets of Tosoh Corporation (a Japanese corporation) and its consolidated subsidiaries as of March 31, 2002 and 2001, and the related consolidated statements of income, shareholders' equity and cash flows for the years then ended, expressed in Japanese yen. Our audits were made in accordance with generally accepted auditing standards in Japan and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the consolidated financial statements referred to above present fairly the consolidated financial position of Tosoh Corporation and its consolidated subsidiaries as of March 31, 2002 and 2001, and the consolidated results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in Japan (Note 1) applied on a consistent basis during the years.

Also, in our opinion, the U.S. dollar amounts in the accompanying consolidated financial statements have been translated from Japanese yen on the basis set forth in Note 1.

Osaka, Japan  
June 27, 2002

*Asahi & Co.*  
Asahi & Co.

# TOSOH GLOBAL NETWORK



## Europe

**TOSOH Europe B.V., Amsterdam, Netherlands**

European sales, marketing, and business development center: Ethylene amines, polyurethane catalysts, zirconia ceramics, zeolites, chloroprene rubber, CSM, and other fine chemicals

**Delamine B.V., Amersfoort, Netherlands**

Ethylene amines and other fine chemicals

**Holland Sweetener Company V.O.F., Geleen, Netherlands**

Aspartame

**Eurogenetics N.V., Tessenderlo, Belgium**

Clinical diagnostic systems and reagents

**Eurogenetics Italia SRL, Torino, Italy**

Clinical diagnostic systems and reagents

**E.S. Genetics, S.A., Littau-Luzern, Switzerland**

Clinical diagnostic systems and reagents

**Eurogenetics U.K., Ltd., Worcestershire, U.K.**

Clinical diagnostic systems & reagents

**TOSOH Belgium N.V., Tessenderlo, Belgium**

AIA-PACK test-cup reagents

**TOSOH Hellas A.I.C., Thessaloniki, Greece**

Electrolytic manganese dioxide

**TOSOH Quartz Ltd., Durham, U.K.**

Fabricated quartzware and silica glass materials

**TOSOH Biosep GmbH, Stuttgart, Germany**

Liquid chromatography products

## Asia

**P.T. Standard Toyo Polymer, Jakarta, Indonesia**

PVC resins

**P.T. Satomo Indovyl Polymer, Jakarta, Indonesia**

PVC resins

**Philippine Resins Industries, Inc., Makati City, Philippines**

PVC resins

**TOSOH Polyvin Corporation, Lipa City, Batangas, Philippines**

PVC compounds

**Mabuhay Vinyl Corporation, Makati City, Philippines**

Caustic soda and chlorine derivatives

**TOSOH SMD Korea, Ltd., Kyungki-Do, Korea**

Sputtering targets and thin film deposition materials

**Tosoh Singapore, Pte., Ltd., Singapore**

Regional sales, marketing, and business development center: Fine chemicals, sputtering targets and thin film deposition materials, and fabricated quartzware

**TOSOH Quartz Co., Ltd., Tainan, Taiwan**

Fabricated quartzware

**TOSOH SMD Taiwan Co., Ltd., Hsin Chu, Taiwan**

Sputtering targets and thin film deposition materials



## Japan

*Tosoh Corporation, Headquarters*  
Tokyo

*Registered Office*  
Yamaguchi

*Sales Offices*  
Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Branch, Yamaguchi Branch

*Manufacturing*  
Nanyo Complex, Yokkaichi Complex

*Research & Development Facilities*  
Tokyo Research Centre, Tokyo Research Laboratory, Nanyo Technology Center, Nanyo Research Laboratory, Yokkaichi Research Laboratory

## United States

*TOSOH America, Inc., Grove City, Ohio*  
U.S. subsidiary holding company and regional headquarters

*TOSOH USA, Inc., Atlanta, Georgia*  
U.S. sales, marketing, and business development center: Ethylene amines, polyurethane catalysts, organic intermediates, zeolites, CSM, and other fine chemicals

*TOSOH Medics, Inc., San Francisco, California*  
Clinical diagnostic systems and reagents

*TOSOH Biosep LLC, Montgomeryville, Pennsylvania*  
Liquid chromatography products

*TOSOH SMD, Inc., Grove City, Ohio*  
Sputtering targets and thin film deposition materials

*TOSOH SET, Inc., Dublin, California*  
PVD and CVD shield refurbishment and process kit management

*General Chemical (Soda Ash) Partners, Parsippany, New Jersey*  
Soda products

*Holland Sweetener North America, Inc., Atlanta, Georgia*  
Aspartame

*TOSOH SGM USA, Inc., Bound Brook, New Jersey*  
Silica glass materials

*TOSOH Quartz, Inc., Portland, Oregon*  
Fabricated quartzware

*TOSOH Quartz, Inc., Austin, Texas*  
Fabricated quartzware and wafer loading systems

*TOSOH TCM Inc., Livermore, California*  
Technical component manufacturing

(As of June 2002)

For more information about locations and contacts, visit Tosoh Corporation at [www.tosoh.com](http://www.tosoh.com)

# THE TOSOH ORGANIZATION

## CORPORATE ORGANIZATION

<b>CHAIRMAN &amp; CEO</b>	Madoka Tashiro
<b>PRESIDENT &amp; COO</b>	Takashi Tsuchiya
<b>CORPORATE SERVICES</b>	Corporate Strategy & Planning Corporate Control & Accounting Finance General Affairs Purchasing & Logistics Legal & Patents Human Resources Corporate Communications Corporate Secretariat Auditing Environment, Safety & Quality Control
<b>CORPORATE R&amp;D</b>	Tokyo Research Laboratory Nanyo Technology Center Nanyo Research Laboratory Yokkaichi Research Laboratory
<b>MANUFACTURING</b>	Nanyo Complex Yokkaichi Complex
<b>SALES BRANCHES</b>	Osaka Branch Nagoya Branch Fukuoka Branch Sendai Branch Yamaguchi Branch
<b>BUSINESS GROUPS</b>	<i>(As of June 27, 2002)</i>
<b>Olefins Division</b>	Sales & Marketing
<b>Polymers Division</b>	Planning & Coordination Polyethylenes High Performance Polymers
<b>Chlor-Alkali Division</b>	Planning & Coordination Chlor-Alkali Sales & Marketing Fertilizer Sales & Marketing
<b>Cement Division</b>	Cement
<b>Organic Chemicals Division</b>	Planning & Business Development Amines Bromine & Organic Intermediates
<b>Scientific Instruments Division</b>	Planning & Business Development Sales & Marketing Research & Development Gels Production
<b>Specialty Materials Division</b>	Planning & Business Development Electronic Materials Battery Manganese Materials Zeolites
<b>Quartz Division</b>	Quartz

## CORPORATE DATA

<b>BOARD OF DIRECTORS</b>	<i>(As of June 27, 2002)</i>
<b>Chairman &amp; CEO</b>	Madoka Tashiro
<b>President &amp; COO</b>	Takashi Tsuchiya
<b>Senior Managing Directors</b>	Kiyoshi Hino Yukihiro Tsutsumi
<b>Managing Directors</b>	Ichiro Hiraki Keiichi Ohtagaki Hiroo Sasaki Hiroshige Wagatsuma Kiyoshi Hashimoto
<b>Directors</b>	Hideo Yamasaki Takuhei Sakurai Kazuya Hoshi Shinji Kurata Yuzo Arima Masatoshi Inai Mitsutoshi Fukuda
<b>Corporate Auditors</b>	Katsuhiko Kawamura Yasuo Kato Akio Fujita Yoshio Shibata
<b>INVESTOR INFORMATION</b>	<i>(As of March 31, 2002)</i>
<b>Date of Incorporation</b>	February 11, 1935
<b>Paid-in Capital</b>	¥41 billion
<b>Common Stock</b>	Authorized: 1,200,000,000 shares Issued: 601,161,912 shares
<b>Number of Shareholders</b>	63,600
<b>Stock Exchange Listings</b>	Tokyo, Osaka, Nagoya, Fukuoka TSE Ticker Symbol: 4042
<b>Transfer Agent for Shares</b>	The Chuo Mitsui Trust & Banking Co., Ltd. 33-1, Shiba 3-chome Minato-ku, Tokyo 105-0014, Japan
<b>Independent Auditors</b>	Asahi & Co.
<b>Number of Employees</b>	9,404
<b>Head Office</b>	Tosoh Corporation 3-8-2, Shiba, Minato-ku, Tokyo 105-8623 Japan

## TOSOH CORPORATE PHILOSOPHY

*Contribute to a better society through innovations in chemistry*

### **TOSOH SPIRIT**

*Determined to achieve our goals in the face of great challenge*

### **FOCUS**

**People:** *Committed to people as the source of our vitality*

**Products:** *Developing superior products through continuous innovation*

**Customers:** *Devoted to finding solutions for our customers' needs*

**R&D:** *Moving into uncharted fields of discovery*

**Global:** *Harnessing global resources to be a better local provider*

**Environmental:** *Committed to environmental protection and the development of eco-friendly products*



**TOSOH**

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# **TOSOH CORPORATION**

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