

# Growth & Efficiency

*Maximizing Shareholder Value to Regain the Growth Track*

2002 Annual Report



*TOAGOSEI*

# Profile

## Creating the Future

Toagosei's corporate philosophy is to contribute through its chemical business to the lives and welfare of as many people as possible. The Company's operations concentrate on the creation of high-value-added products in its three areas of core competence — chloralkali, acrylics, and adhesives. In addition, Toagosei is developing a range of promising new businesses based on innovative technologies. At the same time, Toagosei and its group companies are committed to the unending search for ways to mitigate environmental degradation and improve people's living standards as a means of realizing the dream of a society underpinned by recycling and the use of renewable resources. Our goal is to make the name of Toagosei widely known as a trustworthy, value-creating enterprise that makes a vital contribution to the well-being of society as a whole.

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#### Forward-looking statements:

Various forward-looking statements have been included within this Report based on current forecasting and in accordance with anticipated business and corporate expectations, and actual results could potentially differ because of presently unforeseen circumstances.

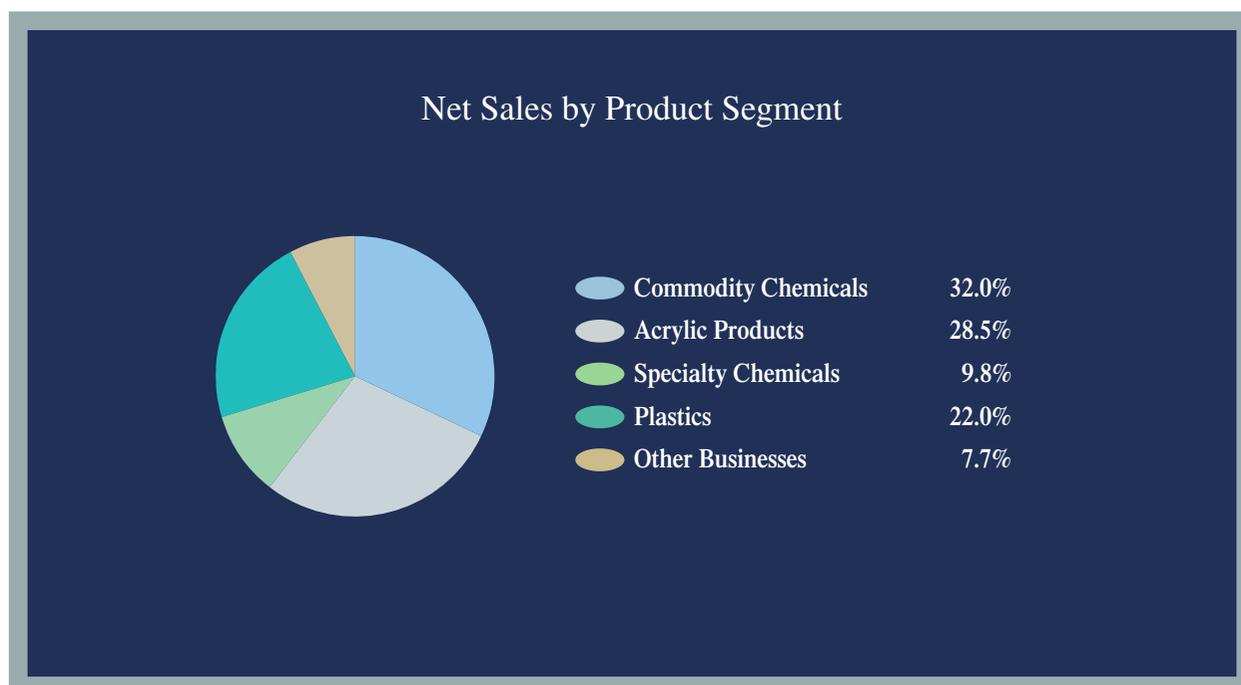
# Financial Highlights

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31, 2002, 2001 and 2000

Consolidated Basis	Millions of yen			Thousands of U.S. dollars (Note 1)	01/00 Change (%)
	2002	2001	2000	2002	
Net sales .....	<b>¥131,093</b>	¥135,583	¥145,246	<b>\$1,093,349</b>	-3.3
Operating income .....	<b>5,585</b>	5,663	6,001	<b>46,576</b>	-1.4
(Loss) income before income taxes and minority interests .....	<b>1,198</b>	(3,540)	2,927	<b>9,993</b>	N.A.
Net (loss) income .....	<b>(3,384)</b>	(3,384)	(247)	<b>(18,310)</b>	N.A.
Per share of common stock (in yen and dollars):					
Net (loss) income (Note 2).....	<b>(8.37)</b>	(12.72)	(0.93)	<b>(0.07)</b>	N.A.
Cash dividends applicable to the year .....	<b>3.00</b>	6.00	6.00	<b>0.03</b>	N.A.
Total assets .....	<b>165,839</b>	177,148	187,923	<b>1,383,141</b>	-6.4
Shareholders' equity .....	<b>71,648</b>	75,175	80,268	<b>597,566</b>	-4.7

Notes 1: U.S. dollar amounts are translated from yen, for convenience only, at the rate of ¥119.90 = \$1.00.

2: Net income per share is computed based on the weighted average number of shares of common stock outstanding during each year.





Akihiko Yamadera  
*President*

## Maximizing Shareholder Value to

A small but strong presence in the global chemicals market

Q

Could you tell us some of your aims as the new president of Toagosei?

A

My management philosophy is based on three core principles.

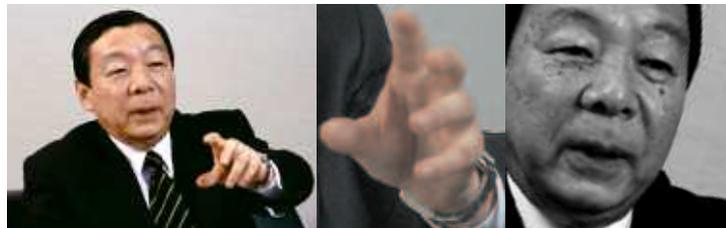
The first is that size is not all-important. The history of international politics, for instance, shows that big countries do not always get their own way.

My second principle is the necessity for the Company to possess one or more unique strengths. In this respect, Toagosei has earned a reputation among its many users for being a small but uniquely talented enterprise.

Thirdly, I place great importance on employing a distinctive approach to research and development. The eminent industrial analyst Yoshiro Tokuhisa pointed out in his book “Does the Japanese Chemical Industry Have a Future?” that R&D is the very heart and soul of the chemical industry. Without a strong research and development base characterized by a unique approach, a company cannot hope to be competitive. The pursuit of the merits of scale is not a part of Toagosei’s management strategy. Instead, we rely on the excellence of our R&D — and of the products that issue from that R&D — to assure us of good profitability and a vital role in the industry.

To repeat my central point: we cannot survive the current fierce competition merely by imitating our competitors. From here on, we must set ourselves yet

# Regain the Growth Track



stricter standards and higher goals. The issues facing us are clear. We must develop and actively market attractive new products, cut costs in all divisions still further, raise the profitability of our acrylic business in Singapore, and make efforts to minimize the losses registered by our PVC operations.

These issues are being steadily addressed in line with the strategies laid out in our current medium-term business plan, initiated in 2002. I am fully aware of my responsibility for making the name of Toagosei known and respected not only in Japan, but throughout the whole world.

Unique products with strong growth potential, plus a solid financial position

Q

**What sort of unique characteristics does Toagosei have within the Japanese chemical industry, and what are its strong points?**

A

Our leading earner is the instant adhesive *Aron Alpha* (sold as *Krazy Glue* in the U.S.), which holds the world's top market share.

Among other products with strong growth potential, the UV-curable resin *Aronix* is in very strong demand and sales are climbing steeply. We also operate a chloralkali products business together with our subsidiary Tsurumi Soda, and a plastic molding business operated through our subsidiary Aron Kasei, which is recording solid business performance. Moreover, Toagosei enjoys a fundamentally sound financial position.

Improving earnings structure; smoothly achieving targets early in second half of 2002

Q

**How do you assess Toagosei's business performance for the 2002 term?**

A

Business performance was poor in the first half of the term, from January to June, but the benefits of the reforms we had instituted in administrative procedures began to appear in the second half, and we ended the year with a notable recovery in performance. Net sales for the full term on a consolidated basis registered a slight year-on-year decline, at ¥131,092 million (US\$1,093 million). In the full-term net income/loss account, however, an improvement was recorded. Although we posted a net loss of ¥2,195 million (US\$18 million) as a result of an extraordinary loss in the amount of ¥3,287 million on valuation of investment securities, in addition to other factors, this still represented an improvement of ¥1,188 million over the net loss for the previous business term. We failed to reach our targets under the medium-term business plan, owing to worse-than-expected downward pressure on prices stemming from intensified competition amid the persistent recession. We can, at least, take comfort from the fact that our operating income performance held firm in such a severe business environment.

Although the Japanese economy posted zero growth in the first quarter of 2003 (Jan-Mar), the Company's earnings exceeded its initial expectations. I will support this trend in earnings by taking steps to further reduce



fixed costs. In the meantime, I intend to focus R&D efforts on our core businesses so as to plant the seeds of definite future growth.

#### Realizing improved efficiency in administrative procedures and reducing costs

Q

**What progress are you making under the medium-term business plan started in 2002?**

A

Both revenues and earnings fell slightly short of target for fiscal 2002, the first year of the medium-term plan. This was because, in the plan, we failed to take sufficiently into account downward pressure on product prices resulting from the weakening of the economy, as well as valuation losses on stocks stemming from the country's sluggish stock market.

I will now address the progress of specific initiatives under the medium-term plan. Regarding the first basic strategy, of transforming the company into a manufacturer of lucrative high-performance products, we experienced some delay in bringing to market certain products thought to have sufficient growth potential to fuel this strategy. Most notably, these products included high-purity inorganic chemicals and synthetic resin molded products.

Our second strategy under the medium-term plan is to steadily improve the efficiency of our business methods. From 2002, we adopted a state-of-the-art ERP (enterprise resource planning) system, and we have already seen tangible improvements in the form of strengthened corporate governance through

Company-wide information sharing, and greater operational efficiency. As part of plans to more efficiently reorganize our production and marketing network, we terminated caustic potash production at the Takaoka Plant. The Nagoya Plant will have sole responsibility for caustic potash operations from now on. The Toyama Sales Office was closed, and its functions taken over by the Takaoka Plant.

We reduced total staff costs by approximately ¥1 billion by phasing out the traditional seniority system, and expanding adoption of a performance-linked system of compensation. We also achieved cost savings of approximately ¥400 million by reducing inventories of finished products and raw materials, and cut distribution costs by approximately ¥300 million.

As part of the implementation of our third strategy — the full integration of group management — we acquired the remaining shares in Tsurumi Soda, making it into a wholly-owned subsidiary. This move, which aims to concentrate operations in fewer locations, contributes to greater efficiency in our chloralkali products business. We are currently in the process of introducing a group-wide system that affords increased flexibility in personnel allocation, and are also extending the ERP system to Group companies.

From here on will be the true test of our medium-term plan. We must step up the speed of reform, concentrate management resources on the rapid development of products with strong growth potential — essential to future corporate growth — and make further achievements in raising our overall business efficiency.

## Withdrawing from unprofitable operations and selling off deficit-ridden affiliates

Q

**What steps are you taking to solve actual and potential problems?**

A

Firstly, we closed down our project to develop a carcinostatic agent at our Tsukuba Research Laboratory the year before last.

Secondly, we implemented streamlining in the PVC operations carried out by our equity-method affiliate V-Tech Corp. Measures included lowering raw material costs and scrapping redundant facilities. We believe these efforts will lead to improved business performance. Depending on future developments, however, we are ready to take decisive action where necessary.

Thirdly, in September 2002, we lowered our equity stake in D.S.T. Micronics from 30% to 14.9%, which means that the company is no longer classified as an equity-method affiliate under the Group's consolidated accounts. Any further deterioration in the firm's business will thus have only a very minor effect on the Toagosei Group.

Regarding Singapore Acrylic Ester, progress had not been as good as originally projected, largely owing to the impact of the Southeast Asian currency turmoil. However, SAE is a cornerstone of the Group's acrylics business, and we are putting efforts into streamlining, cost cutting, and profit-focused marketing with the goal of sharply reducing this company's red-ink margins.

## Taking steps to ensure continued business activities in harmony with the environment

Q

**Could you outline Toagosei's measures to tackle issues related to the environment and safety?**

A

Chemical companies bear an important social responsibility to give consideration to the environmental impact of their business operations. As part of its responsible care activities, Toagosei

is promoting energy conservation, a reduction in the volume of solid waste, and the lowering of the environmental load caused by liquid waste and emissions into the atmosphere. We have drawn up action guidelines to address these matters, and are applying them diligently across the entire company. All four of the Company's factories in Japan acquired ISO 14001 certification four years ago. Since then, we have continued to monitor our environmental compliance through audits conducted by both Company staff and outside experts. The results of these audits are constantly incorporated into management policy to ensure a continually improving relationship with the environment.

With regard to health and safety, we hold meetings of specialists to devise measures for minimizing the possibility of fires, explosions, pollutant leakages, and other such disasters — covering all processes at all our workplaces, including research laboratories and production plants. In the field of consumer safety, we carefully inspect our products and conduct regular reviews to ensure strict conformity with hygiene and other safety standards. The management of Toagosei believe that constant efforts to tackle environmental and safety issues, and to achieve ever-higher levels of success, are matters of the utmost priority.

## Strict corporate compliance is the bedrock of an enterprise's existence

Q

**What efforts have you made toward setting up an effective ethical and legal compliance system?**

A

Japan has been swept by a veritable wave of corporate scandals in recent years, and companies without a proper system of ethical and legal compliance in place are being forced out of business. Some people interpret "compliance" to mean simply observance of the law, but in my view, the true meaning is the adoption of a sincere and ethical attitude toward all the company's stakeholders — shareholders, direct customers, end-users, other business partners, and

the regional community as a whole. Only in this way will we be able to truly meet their expectations.

To ensure the Company's continued existence, we must constantly reexamine our system and methods to ensure not only that we are observing the laws of the land and following our own in-house regulations, but also that the said internal regulations are kept up to date. The management of Toagosei are committed to conducting an ongoing program of detailed staff training as well as employee education, with the goal of raising the degree of observance of our regulations and improving the regulations themselves.

#### Strengthening corporate governance by appointment of an outside director, and of a lawyer as a corporate auditor

Q

**What steps are you taking to reinforce your corporate governance?**

A

In 2001, we reduced the number of directors and adopted an executive officer system with the goal of clearly separating management and executive functions. From 2003, we have welcomed as an outside director Mr. Shigehisa Hibino, formerly of Sumitomo Mitsui Banking Corporation, one of our largest shareholders. Mr. Hibino's detailed knowledge of various industrial sectors enables him to offer wise guidance concerning the Group's overall management.

At the same time, we also appointed Mr. Shou Sato, a qualified lawyer, as a corporate auditor to raise the level of legal conformity and appropriateness of our accounting systems.

Non-executive directors of the Company are charged with the supervision of Group companies, thus further integrating the Toagosei Group's consolidated management system.

#### Increasing management transparency and raising shareholder value

Q

**Please share your views on investor relations activities targeting your shareholders and other market participants.**

A

We established an IR Section in July 2001. From this spring, to ratchet up the level of our IR activities still further, we upgraded the IR Section to the Investor Relations and Public Relations Section. We will demonstrate management transparency through the regular release of important corporate data so as to convince the most critical of our shareholders of Toagosei's management soundness. We pledge to carefully listen to shareholders' responses to our announcements and use their opinions as valuable feedback. In this way, we are confident of being able to improve our operations and build stronger bonds of trust with our shareholders.

The Company's policy continues to be based on exerting the utmost efforts to reward its shareholders through the payment of satisfactory dividends with a higher payout ratio, and to make the Toagosei Group an attractive target for investment.



Akihiko Yamadera  
*President*



# Research & Development

We asked Director Hideki Kato to describe the research and development activities of the Toagosei Group.

**“Speedy and effective R&D facilitates the creation of distinctive market-oriented products.”**



Hideki Kato  
*Director and General Manager of Corporate R&D Department*

## Basic Policies and Organizational Structure

Under the medium-term management plan inaugurated in 2002, our primary aim is to create a business model that promises enhanced performance and higher revenues. To achieve this goal, it is essential to give more impetus to our research and development. For this reason, we have taken up the basic policy of focusing on the growth fields of electronics and eco-friendly chemical products, and bolstering our technological capabilities in downstream fields. In the meantime, our emphasis on high performance is leading to even better value-added products and contributing heavily to overall business growth.

In addition to three laboratories attached to each department in the Business Operating Division, we have two research laboratories under the Corporate Administrative Division. Each laboratory and research facility focuses on new business lines and the development of technologically innovative products. For the current term, we decided to reorganize and strengthen the structure of our R&D to give more prominence to

market-oriented research directed at consumer needs. This involves strengthening ties between laboratories and new business development groups, as well as enhancing the quality of our research and expediting product development.

The departments within the Business Operating Division act as links between the research laboratories and our customers, conducting broad investigations on how to turn customers' needs into “seeds” for new research and promoting product design and commercialization. The Specialty Chemicals Department, which has had much success with the development of various adhesive products, has integrated various research groups on adhesives, building materials and high-performance inorganic materials into a new group, named the Products Development Center. The Acrylic Products Department and the Commodity Chemicals Department have similarly reinforced their research functions.

The Corporate R&D Department has also enhanced its performance by posting some of its business development staff members to its Corporate Research Laboratory.



## Intra-Group R&D

Our subsidiaries, Aron Kasei, Tsurumi Soda, Nihon Junyaku, and Aron Ever-Grip possess information, technology, and know-how related to Toagosei's products, and share virtually the same markets and customers with us. From fiscal 2002, we have stepped up intra-group exchange on the organizational level, with the aim of more effectively utilizing the R&D resources of the various companies in the development of new products.

Intra-group exchange consists of joint research development, reciprocal dispatch of researchers, and making presentations at research seminars held in other companies in the group. Encompassing R&D as a whole, it will deepen intra-group ties and contribute to development of the entire Toagosei group.

## Research Laboratories in Business Operating Division

### ◆Macromolecular Research Laboratory

The Macromolecular Research Laboratory focuses on enhancing the added value of acrylic and other polymer products and creating high-performance products. This laboratory is pouring its efforts into the development of practical uses for the UV-curable resin *Aronix*, which is believed to have great potential in the electronics field, and derivatives of the cationic UV-curable monomer *Oxetane*. It is also developing new high-value-added polymer flocculants and making significant progress in the development of practical applications for our Uniform Functional Oligomer (UFO) technology.

### ◆Commodity Chemicals Laboratory

Specializing in ultra-pure, super-fine chemicals, the Commodity Chemicals Laboratory works on ways to further enhance the purity of ultra-pure inorganic chemicals for the electronics field such as chlorine, caustic potash, and ferric perchloride. In the gas field — a niche market in which Toagosei possesses some expertise — the laboratory is also making steady progress in developing specialty gases for semiconductor manufacturing.

### ◆Specialty Chemicals Laboratory

As previously mentioned, the Specialty Chemicals Laboratory has strengthened its research position by focusing more on market-oriented product development. The Company has had an overwhelming share of the market in instant and other adhesives. In an effort to open new markets, the laboratory focuses on the development of new technologies to strengthen our development in the electronics field. It has also opened various new markets by developing distinctive products such as *Aqurie*, a solvent-free surface agent to protect concrete water tanks against erosion, and *ToughQuick*, a quick-drying, low-odor floor varnish. High-performance products with antibacterial, deodorant, and antifungal properties are key materials in the important field of eco-friendly products. The laboratory is working to expand the field of applications by developing products with multiple features including combined organic and inorganic elements.

## Research Laboratories in Corporate Administrative Division

### ◆Corporate Research Laboratory

To clarify objectives and obtain quicker results through the concentration of R&D resources, the Corporate R&D Department was reorganized to incorporate the Electronics Group and the Life Science Group. Both groups, cooperating with the Corporate Research Laboratory, focus on the key concepts of uniqueness, niche markets, and hybrid products as they carry out research and development for the creation of promising businesses.

#### Electronics Group

This group is developing hybrid materials using the high-level know-how that Toagosei has accumulated in acrylics, oxetanes and specialty silane to uncover new market applications in the field of electronics. These include the use of hybrid materials as photoresists for semiconductors and as light-curable materials for optical



components. The group has already reached the pre-launch evaluation stage for a number of these products.

#### Life Science Group

This group works in cooperation with RIKEN (the Institute of Physical and Chemical Research), utilizing state-of-the-art technologies to design new agrochemicals. It is also developing its own new technologies for the use of microorganisms, bioinformatics, precise organic chemical synthesis and composite membrane manufacture.

The group is focusing its energies on fundamental, practical research to create promising new materials such as eco-friendly agrochemicals, physiologically active substances, pharmaceutical intermediates, and fuel cells. The group has already test-marketed some of these products, and has achieved results utilizing Toagosei's know-how and expertise in polymers and electrolysis to develop electrolytic membranes that give superior cost performance for fuel cells.

#### ◆Production Technology Laboratory

The Production Technology Laboratory emphasizes the development of new manufacturing and processing methods and cost management techniques to enhance the competitiveness of our mainline products. Having

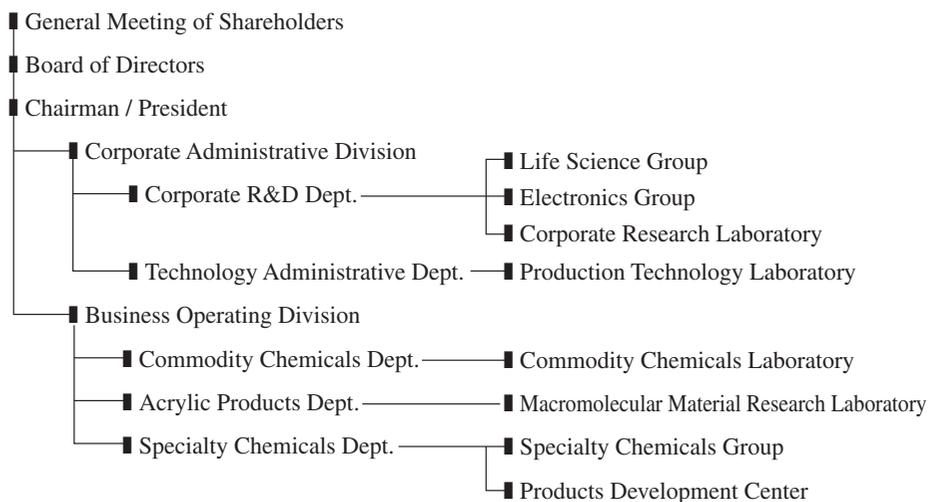
achieved success with innovations in manufacturing mainline products in the business categories of adhesives, acrylics, and commodity chemicals, the laboratory is now striving to develop new methods and high-performance technologies for product development.

#### Vitalization of R&D and Introduction of Research Audit System

Toagosei has introduced a number of measures to vitalize research and development. We hold monthly meetings where young researchers can report directly to the top management and special seminars where researchers can make presentations of their own studies. Toagosei also motivates its research staff by having the management make regular visits to the research laboratories. We also provide researchers with opportunities to work at overseas institutes, as well as special rewards for excellent patents.

In addition to establishing a research audit system as a mechanism for investigating R&D efforts company-wide, we evaluate research topics, analyze necessary costs and time schedules for R&D, and make other efforts to promote a more efficient, more reliable R&D system.

#### Organization



# Commodity Chemicals

## Sales

**¥46,500**  
million  
(fiscal 2004 target)

**¥41,903**  
million  
(fiscal 2002 performance)



Our highly efficient electrolysis facilities.



Sulfuric acid production facilities at the Company's Nagoya Plant. Sulfuric acid, which is Toagosei's earliest product, forms the raw material for a wide variety of chemical products.

**Chloralkali products serve as raw materials for the manufacture of a diverse array of essential everyday products, including textiles, plastics, and paper, and are also useful in agriculture.**

The chloralkali products business — one of the main concerns of the Toagosei Group — contributes to the health and prosperity of society as a whole by providing industry with useful raw materials for the manufacture of an array of products, including textiles, plastics, paper and fertilizers. Utilizing a level of expertise that is among the highest in the industry, Toagosei produces caustic soda, caustic potash, as well as their byproducts chlorine and chlorides, which are indispensable to the manufacturing sector. To provide a reliable supply of our products to meet the potential demand of each region, Toagosei is making an effort to optimize the size of production and distribution centers to ensure competitive prices.

Toagosei was the first in Japan to manufacture trichloroethylene, a degreasing detergent for metal used in the metals and chemicals industries, and continues to hold the largest share of this product on the domestic market. Many of our products, including sulfuric acid, which is one of Toagosei's earliest products, ammonium

sulfate, which is used as a fertilizer, and the product *CarboRich*, a potassium bicarbonate fertilizer used with tobacco plants and fruit trees, ultimately contribute to the betterment of people's lives.

Business involving specialty gases for the semiconductor industry and ultra-pure chemicals show great growth potential. Silicon-based specialty gases such as disilane and hexachlorodisilane, which have brought about many innovations in the manufacture of semiconductors, are specialty products that were first developed by Toagosei in the world. As a highly-sensitive silicon component of various silicon films for semiconductors, disilane has received high international acclaim for its use in amorphous silicon films, which are used in solar cells and xerographic photoreceptor drums. Toagosei has opened new markets by developing a number of notable ultra-pure chemicals, including high-purity ferric chloride.

### Group companies involved

1. Tsurumi Soda Co., Ltd.: Manufacture & sale of caustic soda and chlorides
2. Toa Techno-Gas Co., Ltd.: Manufacture & sale of industrial gases, including oxygen and nitrogen

### Toagosei Group challenges for 2003

- Promote the sale of ultra-pure, higher-value-added products in the electrolysis business, focusing on demand from local industries

# Acrylic Products

## Sales

**¥43,500**  
million  
(fiscal 2004 target)

**¥37,429**  
million  
(fiscal 2002 performance)



*Aron Floc* is an acrylic polymer flocculant used to purify water through coagulation of pollutants, thus contributing to a healthier life.

The super-absorbent resin *Aron Zap* is ideal for disposable diapers, sanitary napkins, and so on. It is also used for anti-condensation ceiling materials, and in the fields of agrochemicals, civil engineering, building construction, and food processing, among others.



**The acrylic products department promotes the development of high-value-added products.**

Toagosei, the first enterprise in Japan to commercialize acrylic esters, is firmly committed to promoting the growth of our acrylic products business as one of our core businesses.

Acrylic acid and acrylic esters, which are our primary products, are known for their adaptability, weather-resistance, brilliance, transparency, and adhesiveness, among other characteristics, and new applications for them are continuously being discovered.

Among our acrylic polymers are a number of high-performance products including water soluble acrylic resin and acrylic lacquer as well as *Aron Floc*, a flocculant used to purify water through coagulation of pollutants and *Aron Zap*, a super-absorbent resin used in the manufacture of disposable diapers.

Among our special acrylic oligomers, we are proud to report that *Aronix*, a resin that hardens instantaneously upon exposure to ultraviolet rays, has retained the top share of its product category in Japan. Thanks to its high performance, *Aronix* is used widely as a raw material for such products as paint, printing ink and coating materials.

We plan to continue developing a full line of distinctive higher-value-added acrylic polymers such as *Arufon*, an environmentally friendly sealant manufactured without the use of solvents by our Uniform Functional Oligomer (UFO) technology.

### Group companies involved

1. Oita Chemical Co., Ltd.: Manufacture of acrylic acid and acrolein
2. Nihon Junyaku Co., Ltd.: Manufacture of acrylic polymers
3. Toagosei Asia Pte Ltd.: Sale of chemical products
4. Singapore Acrylic Ester Pte Ltd.: Manufacture of acrylic esters
5. Taiwan Toagosei Co., Ltd.: Sale of *Aronix*
6. Toa-Jet Chemical Co., Ltd.: Manufacture of *Aronix*

### Toagosei Group challenges for 2003

- Promote improved efficiency in acrylic manufacturing at the joint-venture plant in Singapore
- Develop other potential applications of *Arufon* than as a sealant

# Specialty Chemicals

## Sales



A silver-based antimicrobial agent, *Novaron* shows long-lasting effectiveness against a wide range of bacteria, and is attracting great interest for use in textiles, plastic products, paints and so on. *Novaron* has proved popular overseas as well as in Japan.



*Aron Wall* is a water-resistant, rubber-type acrylic resin for use in coating the walls of buildings. As the industry's first weather-resistant coating material for application to external walls, this product is racking up strong sales.

**We produce specialty chemicals through the creative use of technology and the pursuit of improved functions and enhanced applications.**

*Aron Alpha* (known as *Krazy Glue* in the U.S.), the internationally long-selling instant adhesive developed by Toagosei, which can be used with over 200 types of materials, including plastic, rubber, and metal, helps users cut costs and reduce their work hours. Recently, we launched a new brand of easier-to-use household products and widened our industrial-use product line-ups. We are also busy developing products for new fields and markets. In the field of industrial-use adhesives, we are meeting industry needs with a detailed lineup of products including the aerobic adhesive *Arontite*, to prevent screws from loosening, *Aron Ceramic*, which can withstand high temperatures up to 1300°C, general-purpose-use *Aron Melt PES* and polypropylene- and polyethylene-use *Aron Melt PPET*, which are hot-melt adhesives developed for use with difficult-to-bond materials such as plastics, metals, and textiles, and *Canybond*, an adhesive developed for use with metallic cans. Furthermore, strengthening our system of cooperation with Aron Ever-Grip Ltd. has led to closer ties with customers, resulting in both noticeable market expansion

and improved earnings.

Toagosei has been developing a wide variety of distinctive products for the construction industry. Among these are the highly popular *Aron Wall*, a water-proofing material to prevent leakage from exterior concrete walls and protect buildings from deterioration, which enjoys a top share in the Japanese market, and *Aron SR*, a safe, non-polluting soil stabilization material that has been used successfully for 30 years and has become indispensable for subterranean civil engineering work.

Efforts to promote our lineup of environment-friendly products, which includes *Aqurie*, a solvent-free surface agent to protect concrete potable water tanks against erosion and *ToughQuick*, a quick-drying, low-odor floor varnish, have met with success on the market.

Our ingenuity has also led to the manufacture of a number of high-performance products including *Aron Powder*, a weather and corrosion-resistant powdered paint ideal for use on windshield wipers and *Novaron*, a silver-based inorganic anti-microbial agent.

### Group companies involved

1. Toagosei America Inc.: Manufacture & sale of instant adhesives and other chemicals
2. Elmer's & Toagosei: Sale of instant adhesives
3. Toagosei Hong Kong Ltd.: Sale of instant adhesives
4. Toagosei (Zhuhai) Ltd.: Manufacture & sale of instant adhesives in China
5. Aron Packaging Co., Ltd.: Filling & packaging of adhesives
6. Aron Ever-Grip Ltd.: Manufacture and sale of industrial-use adhesives
7. Toa Kenso Co., Ltd.: Sale of construction-use products and contractor services

### Toagosei Group challenges for 2003

- Optimize adhesive production bases worldwide
- Expedite marketing of new products in the *Aron Alpha* series

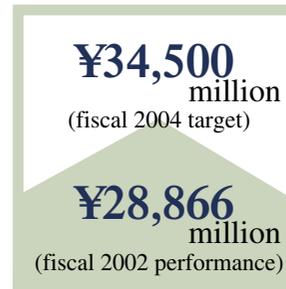
# Plastics

**We make optimal use of plastics technology to develop and manufacture both products and systems most needed for the next generation.**

Currently, the manufacture and sale of plumbing and household-use products is chiefly conducted through Aron Kasei Co., Ltd., which was established in 1950 as Japan's first comprehensive plastics processors to succeed in the manufacture of hard polyvinyl chloride piping and has since been developing its business around the four promising fields of water supply & sewer pipes, electrical & telecommunications line casings, environmental preservation, and nursing care.

In the field of water supply & sewer pipes, which has a great potential to contribute to the improvement of the social infrastructure, the Company was well ahead of the others in developing various products, including small diameter couplings and manholes, and received high praise for its highly effective piping systems. In electrical & telecommunications line casings, eyeing the rapid development of Japan's own information superhighway,

# Sales



Aron Kasei has been meeting the needs of the industry by developing its original *Aron FE* pipe system of plural cable protective casings. In the field of environmental preservation, the Company has begun to address the global issue of protecting the environment by promoting a system both garbage reduction and recycling.

Additionally, to meet the needs of a society which is aging with increasing speed, the Company is developing portable toilets, bathroom handles, shower chairs and other products suited for use in the nursing care field. By adding an ever-expanding sales channel base to Aron Kasei's already impressive research and development capabilities, the Company is aiming to takes its business activities yet successful step forward.

## Group companies involved

1. Aron Kasei Co., Ltd.: Manufacture of molded, synthetic resin products

## Toagosei Group challenges for 2003

- Monitor closely the aging of the population to provide a wider range of nursing care products
- Ensure a steady source of earnings in the plumbing business through the spread of distinctive joints and couplings

# Other Businesses (Life Science Product Businesses)

# Sales



**Toagosei is in the business of launching new, eco-friendly products on the world market.**

In the field of bioscience, *Kaligreen*, a pesticide used as both a plant nutrient and to eliminate powdery mildew, is currently available in six countries, including Japan and the United States. With a special concern for human safety and the natural environment, the Company has also developed *Toaro wettable powder CT*, an eco-friendly biopesticide that kills pests only and *Acaritouch*, a pest control product developed from a food additive for use in eliminating dust mites.



*Acaritouch* is an environmentally friendly anti-mite agent incorporating a fatty acid ester that is so safe it is used in food additives.



The fungicide *Kaligreen*, which is not harmful to the health or the environment, exhibits the twin functions of antibacterial agent and fertilizer.

# Toagosei at a Glance

Net sales on a consolidated basis declined by ¥4,490 million, or 3.3% year-on-year, to ¥131,093 million (US\$1,093 million). Operating income, meanwhile, declined by 1.4% to ¥5,585 million (US\$46 million). Our businesses are divided into the five divisions detailed below.

## Commodity Chemicals



### Business Review

A steep decline in the volume of caustic soda used by our major customers, plus a reduction in exports in the face of the unprofitably low prices on overseas markets, led to an overall fall in shipment volume and a consequent steep year-on-year drop in sales. Shipments of caustic potash were generally as projected, and sales also rose over the previous year, if only by a slight margin. In the field of inorganic chlorides, shipments of sodium hypochlorite, liquid chlorine, and ferric perchloride were weak, and sales, too, were below the previous year's level.

Shipments of organic chlorinated solvents to overseas customers grew steadily, but were unable to offset the decline in sales on the Japanese market, and total sales were down slightly.

Shipments of ammonium sulfate and sulfuric acid declined in the face of lower demand, leading to a steep year-on-year fall in sales.

Among industrial gas products, the volume of nitrogen supplied to customers was generally as projected, but supply volume levels of oxygen and hydrogen were low. As a result, total industrial gas sales fell slightly from the previous term.

As a result, total sales of the commodity chemicals segment came to ¥41,903 million, a year-on-year decline of ¥3,013 million, or 6.7%.

### Main Products and Applications

#### Caustic soda

- Chemical fibers, pulp, dye, and pharmaceuticals

#### Oxygen

- Combustion enhancing gas for welding and cutting, combustion enhancing gas for steel making process, oxygen inhalation (and high pressure oxygen treatment) for medical use, oxygen aeration for wastewater treatment, oxygen-based pulp bleaching, and fermentation in biotechnology

#### Sulfuric acid

- Fertilizers, synthetic fibers, and inorganic chemicals

#### Trichloroethylene

- Metal degreasing and cleaning, solvents, and raw materials for hydrofluorocarbon

## Acrylic Products



### Business Review

Demand on the Japanese market for acrylic acid and acrylic esters staged a recovery as per projections. In addition, we were able to push through price raises in mid-term, and sales for the year consequently posted a slight increase. Shipments to overseas users rose, leading to a sharp increase in sales.

Shipments of acrylic polymers were weak, and sales registered a decline. Shipments of acrylic oligomers, on the other hand, followed an uptrend, thanks to which sales recorded a sharp gain. Fierce competition forced us to lower the prices of our polymer flocculant products, but sales were nonetheless up slightly over the previous year thanks to strong shipments.

As a result, total sales of acrylic products rose ¥1,153 million, or 3.2% over the previous year, to ¥37,429 million.

### Main Products and Applications

#### Acrylic esters

- Acrylic fibers, fiber processors, paints, pressure sensitive and other adhesives, leather processors, paper processors, and acrylic rubber

#### Acrylic acid

- Nonwoven cloth binders, flocculants, dispersants, paper processors, superabsorbent resin, and detergent builders

#### Polymer flocculants

- Treatment of various kinds of wastewater and dehydration of sludges

#### Special Monomers and Oligomers

- Raw material for paints, printing inks, coatings, and adhesives

## Specialty Chemicals



### Business Review

In the adhesives business, shipments to the United States were favorable as projected. Shipments of consumer-use products on the Japanese market held firm, while those of industrial-use products were also favorable. Sales as a whole increased slightly over the previous year.

Both the volume and unit prices of construction materials shipments declined: net sales were thus down.

In the field of in-house-developed products, good shipments were enjoyed by inorganic ion exchangers and coating powders, but as the Company stopped handling the sale of raw material compounds for PVC products, sales of this category declined slightly.

As a result, total sales of specialty chemicals came to ¥12,832 million, down ¥553 million, or 4.1%, from the previous year.

### Main Products and Applications

#### Cyanoacrylate Instant Adhesives

- For bonding rubber, plastic, metal, and wood in industrial and consumer uses

#### Silver-based antimicrobial agents

- For kitchen and bathroom equipment, building materials, and textiles

#### Antifungal agents

- For kitchen equipment, home appliances, and paints

#### Heat-resistant adhesives

- For bonding metal and ceramics used in high temperatures

#### Hot melt adhesives

- For bonding plastics, metals, and textiles
- For bonding difficult to bond plastic like polyethylene, polypropylene polyester, nylon

#### Construction materials

- One-pack waterproof spray materials, decorative waterproof wall materials, permeable type water-absorption preventive agents, chemical grouts, and earth resistance reducing agents

## Plastics



### Business Review

Shipments of plumbing products and protective conduits for electric power and telecommunication cables were in line with expectations. Demand for sewer pipes weakened, in addition to which we suffered from increasingly stiff competition, leading to a lower shipment volume. As a result, sales declined from the previous year.

In consumer products, shipments of general household-use products were lower amid a generally weak consumer spending environment, but shipments of nursing care products benefited from the launch of new products. Sales of consumer products as a whole thus rose.

We enjoyed favorable shipments of raw material compounds for the production of molded plastics, but these were not sufficient to compensate for the decline in shipments of finished molded plastic products, and total sales of the two categories fell year-on-year.

As a result, total sales for the Plastics segment came to ¥28,866 million, down by ¥1,522 million, or 5.0%, from the previous term.

### Main Products and Applications

#### Pipes & Couplings

- Rigid PVC pipes

#### Environmental Products

- Trash receptacles

#### Nursing Care Products

- Portable toilets, nursing care bath products

## Other Businesses

### Business Review

Revenue from transportation services, as well as facility installation and repairs, received by Toagosei Group companies was down ¥554 million, or 5.2%, year-on-year, at ¥10,060 million.

# Environmental Activities

## Environmentally Friendly Sustainable Development

Toagosei assigns a high priority to the management issues of environmental preservation and workplace safety. In line with this commitment, in our basic operating principles we incorporate our concerns for these matters at every stage of the production process, from initial development to disposal.

As a chemical company, we bear a heavy responsibility to proactively tackle environmental and safety issues. In view of this, we have long participated in the Responsible Care Program operated worldwide by companies in the chemical industry. Under this program, we have set basic goals as well as year-by-year numerical targets.

Toagosei has also received ISO14001 environmental management systems certification for all its factories in Japan. We regularly monitor the operation of these 14001 systems for continued compliance with the required standards. We follow a three-pronged approach, involving internal audits of environmental management and audits in line with the Responsible Care standards, and inspections by outside experts. In this way, we are working to ensure a constant improvement in the Company's environmental performance.

At the core of our environmental activities are three key objectives: reduction of environmental impact; development of products and technologies that contribute to environmental preservation; and, disclosure of information on the Company's environment-related activities.

Among specific targets are year-on-year reductions of 1% in total energy consumption (oil equivalent), in the form of electric power and heavy oil. We are making steady progress in tackling global warming, reducing atmospheric emissions and the volume of liquid and solid waste, and curtailing the emission of all substances that pose an environmental load.

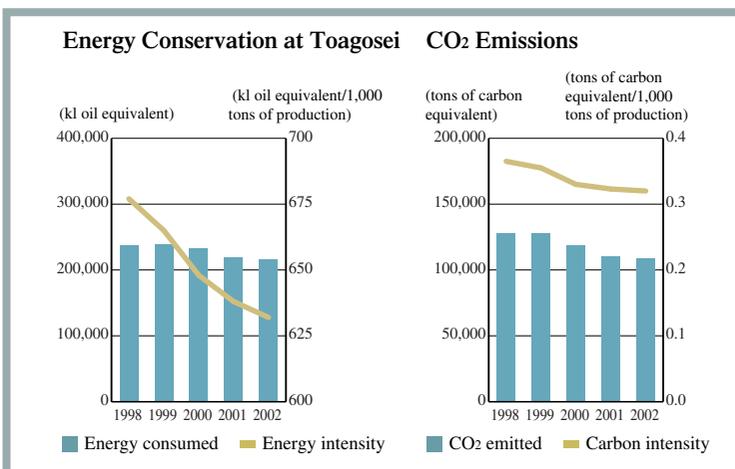
Toagosei has an extensive lineup of environment-friendly products, notably the acrylic polymer flocculant *Aron Floc*, which is in growing demand for purifying water. During the term, we launched a number of new adhesive products to address the serious problem of toxic fumes released in housing interiors — the so-called “sick house syndrome.” Our main products, the *Aron Alpha* series of cyanoacrylate instant adhesives (sold under the name *Krazy*

Glue in North America and Cyanolit in Europe), as well as a number of our cyanoacrylate products for construction use, have already been awarded the Eco-mark seal of approval.

In our caustic soda business, which is a classic example of energy-intensive operations, we participated in a joint project to develop an energy-saving method of producing table salt through electrolysis. For this method we adopted gas diffusion electrodes, which allow a saving in electric power consumption of approximately 40%. Pilot production runs with a view to eventual commercialization have been successfully conducted at our Nagoya Plant.

Toagosei has been conducting environmental accounting since 2000, and this has proved effective in evaluating the efficiency of our environmental preservation activities. We also follow a policy of openness and interaction with the community in our environmental protection activities. These include conducted tours of our factories, voluntary cleanup campaigns by Toagosei staff in the vicinity of our plants and offices, and staff participation in earthquake and other disaster response drills. In these and other ways, we are working to build and maintain good relations with the local community wherever we operate.

Toagosei takes pains to ensure extensive disclosure of all its environmental activities in an environmental report published each year, as well as on the Company's website at <http://www.toagosei.co.jp/>. The latest edition of our environmental report contains specific examples of measures implemented at all the Company's places of business and Group companies.



# Board of Directors and Corporate Auditors



*Left to right:* (Seated) Bunshiro Fukuzawa and Akihiko Yamadera  
(Standing) Katsutoshi Yamada, Akio Arisawa, Sakou Suzuki, Manabu Terao,  
Hideki Kato, and Shigehisa Hibino

## *Chairman*

Bunshiro Fukuzawa

## *President*

Akihiko Yamadera

## *Directors*

Sakou Suzuki  
Manabu Terao  
Akio Arisawa  
Hideki Kato  
Katsutoshi Yamada  
Shigehisa Hibino

## *Senior Operating Officers*

Shozo Koyama  
Yasushi Funaki  
Yoshiaki Kawamoto

## *Operating Officers*

Takeo Nakajima  
Toyohiko Kitano  
Kunihiko Mizutani  
Yoshinobu Yamashita  
Hisanori Abe  
Teruo Yoshida  
Akira Yada  
Kunio Sato  
Sueji Takashima  
Yasutaro Yasuda  
Futoshi Hashimoto  
Shigeo Suzuki

## *Corporate Auditors*

Motoyuki Kitajima (Standing)  
Takeyoshi Ono  
Hirotada Ito  
Shou Sato

(As of March 31, 2003)

# Management's Discussion & Analysis

## Operating Environment and Financial Strategy

The operating environment was generally harsh during the term under review. In the first half, rising exports and the completion of inventory adjustments were taken as signs of a bottoming out of the Japanese economy although no improvement was seen in the employment situation. In the second half of the term, little progress was made toward an economic recovery against the backdrop of declining stock prices.

In the chemical industry, although the completion of inventory adjustments led to a recovery in production and shipments, the operating environment remained severe, due to persistent low prices of our products despite high prices of naphtha and other raw materials.

At the Company and its subsidiaries, we stepped up cost reduction measures to cope with this difficult operating environment. In July 2002, we converted Tsurumi Soda Co., Ltd. into a wholly owned subsidiary and reinforced our control over the chloralkali business across the whole group. In December, production facilities of caustic potash were transferred from the Takaoka Factory to the Nagoya Factory, to optimize our production system.

At the same time, where the Company's financial

strategy is concerned, we have implemented measures to reduce total assets, realizing better allocation of human resources and control of labor costs, decreasing product and raw material inventories and consequently reducing costs. We also sold Company-held real estate. Together, these efforts will lead to improvements in the effective use of capital and raise Toagosei's overall profitability. In a financial strategy of this kind, strong emphasis will be placed on return on equity (ROE), with greater attention paid to addressing ways to raise this key indicator.

## Liquidity and Capital Resources

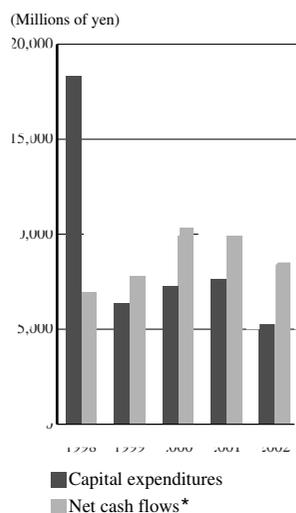
### Financial Position

At the end of the reporting term, total assets were down ¥11,309 million, or 6.3% from the previous term-end, standing at ¥165,839 million (US\$1,383 million).

Regarding current assets, the introduction of a new cash management system for our core businesses, enabling a reduction in idle funds and more accurate control of inventories, resulted in a reduction in inventory assets, as well as in cash and deposits.

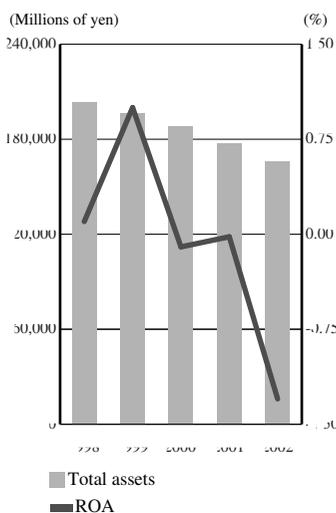
Furthermore, short-term loans to affiliated companies decreased as a result of a reduction of liabilities in excess of

**Capital expenditures & net cash flows**

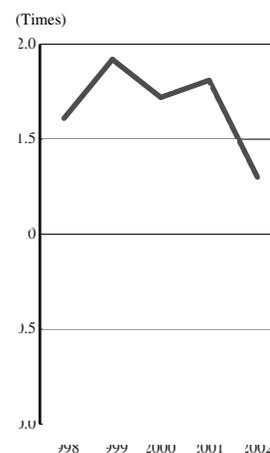


\*Net cash flow figures from 1998 to 1999 are on a non-consolidated basis.

**Total assets & ROA**



**Current ratio**



assets at V-Tech Corp, an equity-method affiliate. As a result, the current ratio dropped to 126.9%, from 182.2% in the previous year. However, the ratio of quick assets to average monthly net sales remained unchanged at 4.6. Thus, the Company continued to maintain a healthy state of liquidity during the term under review.

Moreover, a substantial decline in investment securities due to the posting of valuation losses caused by the weak stock market also contributed to the decline in total assets.

Long-term liabilities steadily declined, and thanks to more efficient fund management stemming from the introduction of the new cash management system, total interest-bearing debt also decreased. Moreover, minority interests decreased as a result of Tsurumi Soda becoming a wholly owned subsidiary. In shareholders' equity, retained earnings declined due to the posting of a net loss for the term.

As a result of these factors, the equity ratio rose 0.8 percentage point to end the term marginally higher at 43.2%, mainly due to the reduction in total assets during the reporting term. Moreover, the property, plant & equipment turnover ratio — an indicator of asset efficiency — rose from 1.73 in the previous year to 1.75. Figures for return on assets (ROA) and ROE improved year-on-year.

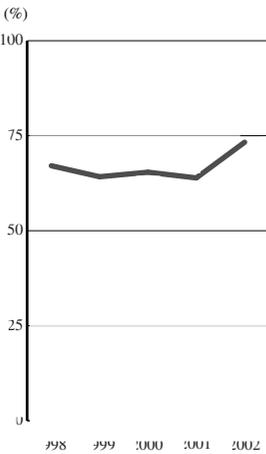
**Cash Flows**

Net cash provided by operating activities rose 14.9% from the previous year's ¥11,384 million to ¥13,091 million (US\$109 million). Cash inflows fell, reflecting a decline in the provision for retirement benefits (a non-fund transaction) and a smaller decrease in trade receivables. However, this decrease was partially offset by a decrease in inventories, as well as the posting of income before income taxes, leading to net cash inflows ¥1,707 million higher than the previous term.

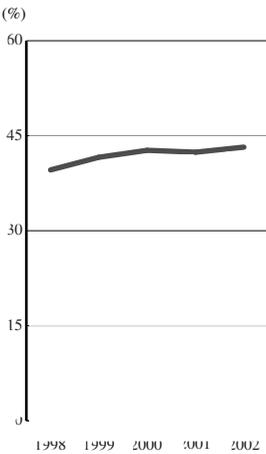
Net cash used in investing activities decreased slightly to ¥7,332 million (US\$61 million) from ¥7,653 million in the previous year. Along with a decrease in proceeds from the sale of property, plant & equipment, short-term loans to affiliates increased. As a result of reduced expenditures for the acquisition of property, plant & equipment, net cash outflow decreased ¥321 million.

Regarding cash flows from financing activities, net cash outflows increased to ¥7,194 million (US\$60 million), from ¥4,448 million. This increase is largely attributable to higher net cash outflows accompanying the acquisition of the Company's own shares, as well as the repayment of interest-bearing debt, which was facilitated by the

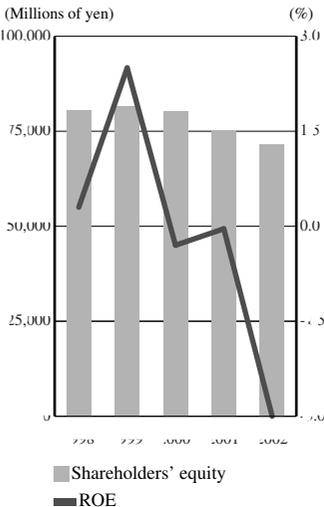
**Ratio of property, plant & equipment to long-term capital**



**Ratio of shareholders' equity**



**Shareholders' equity & ROE**



introduction of a cash management system. As a result, net cash outflows increased ¥2,746 million.

Combined, the above resulted in a balance of cash and cash equivalents at the end of the term under review of ¥8,587 million (US\$71 million), down ¥1,428 million from the previous year.

Consequently, the free cash flow (cash flows from operating activities + cash flows from investing activities) doubled from the previous year's level, to ¥6,426 million.

## Results of Operations

### Net Sales

For the fiscal year ended December 2002, net sales stood at ¥131,093 million (US\$1,093 million), a year-on-year decline of 3.2% on a consolidated basis. A reduction in the quantity of product shipments and falling prices of commodity chemicals were the primary culprits driving this decline. By product segment, sales of acrylic products rose 3.2% to ¥37,430 million. In contrast, the other product segments declined. Sales of commodity chemicals came to ¥41,904 million (down 5.6%), sales of specialty chemicals amounted to ¥12,833 million (down 11.9%), sales of plastics fell 5.0% to ¥28,866 million, and sales of other

products totaled ¥10,059 million, a decline of 2.9%.

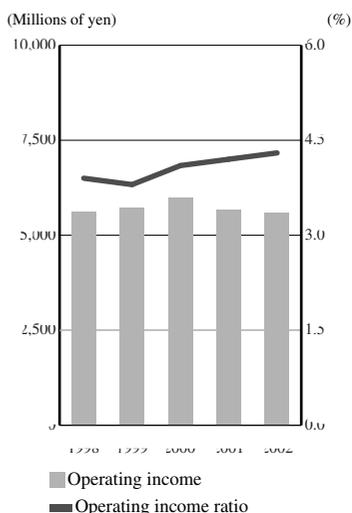
Although the majority of the Company's consolidated subsidiaries in Japan saw declines in net sales, Aron Ever-Grip Ltd. posted a rise in sales in the domestic market and three overseas subsidiaries also reported sales growth.

### Earnings

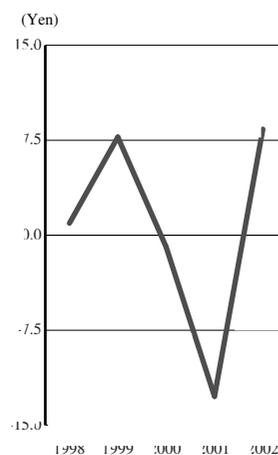
The gross profit margin improved by 0.1 percentage point year-on-year to end at 27.6%. Owing to steps taken to reduce selling, general and administrative expenses, this item declined 3.2% from the previous term, to ¥30,571 million (US\$254 million). The ratio of selling, general and administrative expenses remained at the previous term's level of 23.3%. These results combined to produce operating income on a consolidated basis of ¥5,585 million (US\$46 million), down 1.3%, while the ratio of operating income to net sales rose 0.1 percentage point to 4.3%.

In a segment breakdown of the main products factoring into the ratio of operating income to net sales, commodity chemicals, at 6.4%, were on par with the previous year, the figure for specialty chemicals was 5.4 percentage points higher at 20.3%, and plastics rose 2.0 percentage points to 9.3%. The acrylic products segment continued to operate at

Operating income & ratio as a percentage of net sales



Net income (loss) per share



a loss, resulting in a ratio of operating loss to net sales of 3.6% for the term under review (compared with the relevant ratio of 2.7% for the previous term). The operating income margin was bolstered by highly profitable specialty chemical products.

In a breakdown by Group company, Aron Kasei Co., Ltd., Toa Techno-Gas Co., Ltd., and Toagosei America Inc. — key consolidated subsidiaries — saw increases in operating income, whereas the parent company and Singapore Acrylic Ester Pte Ltd recorded declines.

Regarding expenses, net other expenses improved by ¥4,837 million, to ¥4,377 million. Valuation losses on investment securities were unavoidable because of the lackluster stock market. However, reduction in interest-bearing debt, realized through introduction of the cash management system, resulted in a decline in interest paid. The above results combined to produce a net loss for the term of ¥2,195 million (US\$18 million), ¥1,189 million less than the previous term.

## Outlook

Although the global economy is expected to recover in 2003, there is growing concern about the future direction of the US economy. Meanwhile, the protracted sluggishness of the Japanese economy has now clearly become a deflationary recession, which suggests a recovery is still far off.

In the chemical industry, amid fears that raw material and fuel prices will move higher, competition is expected to intensify at home and abroad, while the market prices for our products are likely to decline. Consequently, the business environment seems set to become even more severe. In view of this management climate, we are making every effort to enable Toagosei to contribute actively to society as a firmly positioned, distinctive chemical manufacturer. With the transformation of our business structure to a focus on high-performance and high-value-added products, the promotion of efficiency in business activities, and the full integration of group management as the medium-term challenges at hand, we plan to involve the entire Toagosei Group in a concerted effort to successfully address these issues.

Regarding the assurance of product quality, safety, and environmental issues, we are actively implementing various measures at every stage, from product development to final disposal.

In light of all the above factors, we forecast performance in 2003 that will include net sales of ¥132,000 million, operating income of ¥6,900 million and net income of ¥2,200 million.



	Millions of yen		Thousands of U.S. dollars (Note 3)
	2002	2001	2002
<b>Liabilities and shareholders' equity</b>			
<b>Current liabilities:</b>			
Short-term bank loans (Note 6) .....	¥ 6,565	¥ 7,610	\$ 54,751
Current portion of long-term debt and lease obligation (Note 6) .....	19,446	2,437	162,188
Commercial paper.....	4,000	4,000	33,361
Payables:			
Unconsolidated subsidiaries and affiliates .....	1,825	1,698	15,216
Trade.....	16,950	17,117	141,369
Notes payable for acquisition of property, plant and equipment .....	—	274	—
Other.....	4,087	5,579	34,083
	<u>22,862</u>	<u>24,668</u>	<u>190,668</u>
Accrued expenses .....	1,107	1,188	9,232
Accrued income taxes (Note 8) .....	1,159	602	9,671
Deferred tax liabilities (Note 8).....	2	38	16
Other current liabilities .....	711	820	5,931
<b>Total current liabilities</b> .....	<u>55,852</u>	<u>41,363</u>	<u>465,818</u>
<b>Long-term liabilities:</b>			
Long-term debt (Note 6).....	20,777	40,611	173,286
Lease obligation (Note 6) .....	465	—	3,874
Deferred tax liabilities (Note 8).....	871	645	7,267
Accrued retirement benefits for employees (Note 7).....	3,399	4,170	28,349
Accrued retirement benefits for directors .....	451	421	3,761
Other long-term liabilities.....	4,714	1,692	39,316
	<u>30,677</u>	<u>47,539</u>	<u>255,853</u>
Minority interests in consolidated subsidiaries .....	7,662	13,071	63,904
<b>Shareholders' equity (Notes 9 and 15):</b>			
Common stock, without par value:			
Authorized — 467,650,000 shares			
Issued:			
2002 — 263,992,598 shares .....	20,886	—	174,198
2001 — 267,129,768 shares .....	—	20,886	—
Capital surplus .....	15,012	15,623	125,203
Retained earnings.....	35,835	38,840	298,873
Unrealized holding gain on securities.....	785	512	6,550
Translation adjustments .....	(611)	(365)	(5,096)
Less treasury stock, at cost .....	(259)	(321)	(2,162)
	<u>71,648</u>	<u>75,175</u>	<u>597,566</u>
<b>Contingent liabilities (Note 10)</b>			
<b>Total</b> .....	<u>¥165,839</u>	<u>¥177,148</u>	<u>\$1,383,141</u>



## Consolidated Statements of Shareholders' Equity

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2002	2001	2002
<b>Common stock</b>			
Balance at beginning of year .....	¥20,886	¥20,886	\$174,198
Shares issued for exchange of the Company's shares for those of a consolidated subsidiary (2002 — 6,002,375 shares).....	—	—	—
Retirement of treasury stock (2002 — 9,139,545 shares).....	—	—	—
Balance at end of year.....	<u>¥20,886</u>	<u>¥20,886</u>	<u>\$174,198</u>
<b>Capital surplus</b>			
Balance at beginning of year .....	¥15,623	¥15,623	\$130,300
Increase due to the for exchange of the Company's shares for those of a consolidated subsidiary .....	772	—	6,438
Retirement of treasury stock.....	(1,383)	—	(11,535)
Balance at end of year.....	<u>¥15,012</u>	<u>¥15,623</u>	<u>\$125,203</u>
<b>Retained earnings</b>			
Balance at beginning of year .....	¥38,840	¥43,858	\$323,936
Cash dividends paid.....	(797)	(1,599)	(6,646)
Bonuses to directors .....	(13)	(38)	(109)
Adjustment to retained earnings for merger of consolidated subsidiaries .....	—	3	—
Adjustments to retained earnings for inclusion in consolidation .....	0	—	2
Net loss .....	(2,195)	(3,384)	(18,310)
Balance at end of year.....	<u>¥35,835</u>	<u>¥38,840</u>	<u>\$298,873</u>
<b>Net unrealized holding gain on securities</b>			
Balance at beginning of year .....	¥ 512	¥ 32	\$ 4,273
Net changes during the year .....	273	480	2,277
Balance at end of year.....	<u>¥ 785</u>	<u>¥ 512</u>	<u>\$ 6,550</u>
<b>Translation adjustments</b>			
Balance at beginning of year .....	¥ (365)	¥(1,102)	\$ (3,044)
Adjustment arising from translation of foreign currency financial statements .....	(246)	737	(2,052)
Balance at end of year.....	<u>¥ (611)</u>	<u>¥ (365)</u>	<u>\$ (5,096)</u>
<b>Treasury stock</b>			
Balance at beginning of year .....	¥ (321)	¥ (130)	\$ (2,678)
Acquisition during the year, net of sales .....	(2,604)	(223)	(21,718)
Retirement of treasury stock.....	1,383	—	11,534
Shares issued for exchange of the Company's shares for those of a consolidated subsidiary .....	1,283	—	10,700
Balance at end of year.....	<u>¥ (259)</u>	<u>¥ (321)</u>	<u>\$ (2,162)</u>

See accompanying notes to consolidated financial statements.

# Consolidated Statements of Cash Flows

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2002	2001	2002
<b>Operating activities:</b>			
Income (loss) before income taxes and minority interests.....	¥ 1,198	¥(3,540)	\$ 9,993
Depreciation and amortization.....	8,939	9,932	74,555
Decrease in provision for doubtful receivables.....	(232)	(72)	(1,934)
(Reversal of) provision for retirement benefits.....	(770)	2,553	(6,422)
Book value of securities contributed to retirement benefit trust.....	—	2,282	—
Decrease in other provisions.....	(19)	(831)	(158)
Interest and dividend income.....	(452)	(376)	(3,777)
Interest expense.....	884	1,243	7,374
Foreign currency exchange (gain) loss.....	(284)	328	(2,368)
Gain on sales of marketable securities.....	—	(16)	—
Equity in losses of affiliates.....	1,829	1,476	15,256
Gain on sales of property, plant and equipment.....	(464)	(1,008)	(3,869)
Gain on expropriation of property, plant and equipment.....	(403)	—	(3,363)
Gain on sales of investments in securities.....	(156)	(474)	(1,300)
Loss on disposal of property, plant and equipment.....	333	691	2,776
Unrealized loss on securities.....	2,457	631	20,490
Loss on devaluation of memberships at golf clubs.....	—	134	—
Receivables.....	89	7,030	743
Inventories.....	1,407	(969)	11,729
Payables.....	(34)	(2,792)	(280)
Other.....	822	(470)	6,855
Director's bonuses.....	(20)	(57)	(167)
	<u>15,124</u>	<u>15,695</u>	<u>126,133</u>
Interest and dividend received.....	452	382	3,772
Interest paid.....	(887)	(1,268)	(7,399)
Income taxes paid.....	(1,598)	(3,425)	(13,328)
<b>Net cash provided by operating activities.....</b>	<b>13,091</b>	<b>11,384</b>	<b>109,178</b>
<b>Investing activities:</b>			
Acquisitions of time deposits.....	—	129	—
Withdrawal of time deposits.....	—	0	—
Purchases of marketable securities.....	—	(98)	—
Proceeds from sales of marketable securities.....	—	80	—
Purchases of investments in securities.....	(582)	(561)	(4,853)
Proceeds from sales of investments in securities.....	568	584	4,737
Acquisition of shares of consolidated subsidiaries.....	—	0	—
Purchases of property, plant and equipment.....	(6,974)	(8,307)	(58,168)
Proceeds from sales of property, plant and equipment.....	575	1,008	4,797
Compensation received from expropriation of property, plant and equipment.....	341	—	2,843
Increase in short-term loans.....	(740)	(425)	(6,172)
Long-term loans made.....	(83)	(139)	(689)
Collection of long-term loans.....	583	536	4,865
Other, net.....	(1,020)	(460)	(8,508)
<b>Net cash used in investing activities.....</b>	<b>(7,332)</b>	<b>(7,653)</b>	<b>(61,148)</b>
<b>Financing activities:</b>			
(Decrease) increase in short-term bank loans.....	(912)	2,766	(7,607)
Proceeds from long-term loans.....	—	2,300	—
Repayment of long-term loans.....	(2,538)	(2,541)	(21,172)
Proceeds from issuance of bonds.....	—	5,000	—
Redemption of bonds.....	—	(10,000)	—
Proceeds from issuance of shares to minority shareholders.....	—	0	—
Repayment of lease obligation.....	(154)	—	(1,283)
Purchases of treasury common stock.....	(2,604)	(186)	(21,714)
Cash dividends to shareholders.....	(986)	(1,787)	(8,227)
<b>Net cash used in financing activities.....</b>	<b>(7,194)</b>	<b>(4,448)</b>	<b>(60,003)</b>
Effect of exchange rate changes on cash and cash equivalents.....	(15)	290	(129)
Net decrease in cash and cash equivalents.....	(1,450)	(427)	(12,102)
Cash and cash equivalents at beginning of the year.....	10,015	10,442	83,531
Increase due to inclusion in consolidation.....	22	—	184
Cash and cash equivalents at end of the year.....	<u>¥ 8,587</u>	<u>¥10,015</u>	<u>\$ 71,613</u>

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

Toagosei Co., Ltd. and Consolidated Subsidiaries December 31, 2002

## 1. Basis of Preparation

Toagosei Co., Ltd. (the "Company") and its domestic subsidiaries maintain their books of account in conformity with the financial accounting standards of Japan, and its foreign subsidiaries maintain their books of account in conformity with those of the countries of their domicile.

The accompanying consolidated financial statements have been compiled from the consolidated financial statements prepared by the Company as required under the Securities and Exchange Law of Japan and, have been prepared in accordance with accounting principles and practices generally accepted in Japan, which may differ in certain material respects from accounting principles and practices generally accepted in countries and jurisdictions other than Japan.

## 2. Summary of Significant Accounting Policies

### Principles of Consolidation and Accounting for Investments in Unconsolidated Subsidiaries and Affiliates

The accompanying consolidated financial statements include the accounts of the Company and significant companies controlled directly or indirectly by the Company. Significant companies over which the Company exercises substantial influence in terms of their operating and financial policies have been included in the consolidated financial statements on an equity basis. All significant intercompany balances and transactions have been eliminated in consolidation.

Investments in subsidiaries and affiliates which are not consolidated or accounted for by the equity method are carried at cost or less. Where there has been a permanent decline in the value of such investments, the Company has written down the investments.

The difference at the dates of acquisition between the cost and the underlying net equity of investments in consolidated subsidiaries and companies accounted for by the equity method is being amortized by the straight-line method over a period of five years.

### Foreign Currency Translation

Revenue and expense accounts of foreign consolidated subsidiaries are translated at the rate of exchange in effect at the balance sheet date, and, except for the components of shareholders' equity, the balance sheet accounts are also translated into yen at the same exchange rate. The components of shareholders' equity are translated at the historical exchange rates.

### Cash Equivalents

All highly liquid investments with a maturity of three months or less when purchased are considered cash equivalents.

### Securities

Securities other than those of subsidiaries and affiliates are classified into three categories: trading, held-to-maturity or other securities. Trading securities are carried at fair value and held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value determined based on the average of the quoted prices (or the equivalent) in the one-month period prior to the balance sheet date with changes in unrealized holding gain or loss, net of the applicable income taxes, included directly in shareholders' equity. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

Until the year ended December 31, 2001, the Company determined the fair value of marketable securities classified as other securities based on the quoted prices (or the equivalent) as of the balance sheet date. Effective the year ended December 31, 2002, the Company changed its method of accounting for marketable securities classified as other securities to determining their fair value based on the average of the quoted prices (or the equivalent) in the one-month period prior to the balance sheet date. This change was made in order to determine the fair value more accurately by averaging out temporary fluctuations in the quoted prices (or the equivalent) resulting from various changes in the economic environment. The effect of this change on the calculation of fair value was immaterial.

### Inventories

Inventories are stated at cost determined by the moving average method.

Until the year ended December 31, 2001, the Company and a consolidated subsidiary determined the cost of inventories by the average method. Effective the year ended December 31, 2002, the Company and this consolidated subsidiary changed their method of accounting for inventories to determining the related cost by the moving average method. This change was made in order to value inventories more accurately and to achieve a better matching of revenue and expenses. This became possible because the Company is now able to manage its inventories carefully from the manufacturing stage through the logistics stage as a result of the implementation of a new information system for fundamental operations. The effect of this change was immaterial.

### Property, Plant and Equipment

Depreciation of property, plant and equipment is computed principally by the straight-line method over the estimated useful lives of the respective assets, except for five consolidated subsidiaries for which depreciation is computed by the declining-balance method over the estimated useful lives of the respective assets.

### Income Taxes

Deferred tax assets and liabilities are determined based on the differences between financial reporting and the tax bases of assets and liabilities and are measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse.

### Research and Development Expenses

Research and development expenses are charged to income as incurred.

### Leases

Noncancelable lease transactions are accounted for as operating leases (whether such leases are classified as operating or finance leases) except that lease agreements which stipulate the transfer of ownership of the leased assets to the lessee are accounted for as finance leases.

### Retirement Benefits

Accrued retirement benefits for employees have been provided mainly at an amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets as of the balance sheet date, as adjusted for the unrecognized

net retirement benefit obligation at transition and unrecognized actuarial gain or loss. The retirement benefit obligation is attributed to each period by the straight-line method over the estimated years of service of the eligible employees. The net retirement benefit obligation at transition was fully charged to income for the year ended December 31, 2001 except for that of one consolidated subsidiary which is being amortized over a period of 4 years by the straight-line method. Actuarial gain and loss of the Company is amortized in the year following the year in which the gain or loss is recognized by the straight-line method over the average remaining years of service of the employees (15 years). Actuarial gain and loss of two consolidated subsidiaries are amortized by the straight-line method over a period (5 years and 10 years, respectively) which is shorter than the average remaining years of service of the employees.

In addition, directors and corporate auditors of the Company and certain consolidated subsidiaries are customarily entitled to lump-sum payments under the unfunded retirement plans. The provision for retirement benefits for these officers has been made at estimated amounts.

#### Derivative Financial Instruments

The Company has entered into various derivative financial instruments in order to manage certain risks arising from adverse fluctuations in foreign currency exchange rates and interest rates. Derivative financial instruments are carried at fair value with any changes in unrealized gain or loss charged or credited to operations, except for those which meet the criteria for the special accounting treatment under which any differences paid or received on the interest rate swaps are recognized as adjustments to interest expense over the life of each swap, thereby adjusting the effective interest rate on the hedged items, which are the underlying borrowings. Receivables and payables hedged by qualified forward foreign exchange contracts are translated at the corresponding foreign exchange contract rates.

#### Appropriation of Retained Earnings

Under the Commercial Code of Japan (the "Code"), the appropriation of retained earnings with respect to a given financial period is made by resolution of the shareholders at a general meeting held subsequent to the close of such financial period. The accounts for that period do not, therefore, reflect such appropriations. See Note 15.

#### Amounts Per Share

The computation of net income or loss per share is based on the weighted average number of shares of common stock outstanding during each year.

Cash dividends per share represent the cash dividends declared as applicable to the respective years together with the interim cash dividends paid.

### 3. U.S. Dollar Amounts

The translation of yen amounts into U.S. dollar amounts is included solely for convenience, as a matter of arithmetic computation only, at the rate of ¥119.90 = \$1.00, the approximate exchange rate at December 31, 2002. The translation should not be construed as a representation that yen have been, could have been, or could in the future be, converted into U.S. dollars at the above or any other rate.

### 4. Securities

(a) Information regarding marketable securities classified as other securities as of December 31, 2002 and 2001 is as follows:

	December 31, 2002					
	Millions of yen			Thousands of U.S. dollars		
	Acquisition cost	Carrying value	Unrealized gain (loss)	Acquisition cost	Carrying value	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost:						
Stock .....	¥3,283	¥5,458	¥ 2,175	\$27,377	\$45,519	\$18,142
Bonds:						
Government bonds.....	259	259	0	2,164	2,168	4
Corporate bonds.....	244	252	8	2,037	2,101	64
Subtotal.....	<u>3,786</u>	<u>5,969</u>	<u>2,183</u>	<u>31,578</u>	<u>49,788</u>	<u>18,210</u>
Securities whose acquisition cost exceeds their carrying value:						
Stock .....	3,568	3,091	(477)	29,758	25,781	(3,977)
Bonds:						
Government bonds.....	20	20	(0)	166	166	(0)
Corporate bonds.....	100	100	(0)	831	830	(1)
Others .....	51	51	(0)	426	424	(2)
Subtotal.....	<u>3,739</u>	<u>3,262</u>	<u>(477)</u>	<u>31,181</u>	<u>27,201</u>	<u>(3,980)</u>
Total.....	<u>¥7,525</u>	<u>¥9,231</u>	<u>¥(1,706)</u>	<u>\$62,759</u>	<u>\$76,989</u>	<u>\$14,230</u>

	December 31, 2001		
	Millions of yen		
	Acquisition cost	Carrying value	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost:			
Stock .....	¥ 5,115	¥ 7,896	¥2,779
Bonds:			
Government bonds.....	100	100	0
Corporate bonds.....	149	151	2
Others .....	84	98	13
Subtotal.....	<u>5,448</u>	<u>8,245</u>	<u>2,794</u>
Securities whose acquisition cost exceeds their carrying value:			
Stock .....	4,139	2,495	(1,644)
Bonds:			
Government bonds.....	174	174	0
Corporate bonds.....	292	256	(36)
Others .....	50	40	(10)
Subtotal.....	<u>4,655</u>	<u>2,965</u>	<u>(1,690)</u>
Total.....	<u>¥10,103</u>	<u>¥11,210</u>	<u>¥1,104</u>

(b) Sales of securities classified as other securities amounted to ¥583 million with gain of ¥474 million for the year ended December 31, 2001.

(c) The redemption schedule for securities with maturity dates classified as other securities is summarized as follows:

	December 31, 2002		
	Millions of yen		
	Due in one year or less	Due after one year through five years	Due after five years through ten years
Government bonds .....	¥160	¥120	¥ —
Corporate bonds .....	150	200	—
Other debt securities.....	16	14	—
Total .....	<u>¥326</u>	<u>¥334</u>	<u>¥ —</u>

	December 31, 2002		
	Thousands of U.S. dollars		
	Due in one year or less	Due after one year through five years	Due after five years through ten years
Government bonds .....	\$1,335	\$1,001	\$ —
Corporate bonds .....	1,251	1,668	—
Other debt securities.....	133	117	—
Total .....	<u>\$2,719</u>	<u>\$2,786</u>	<u>\$ —</u>

## 5. Inventories

Inventories at December 31, 2002 and 2001 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Merchandise and finished products .....	¥ 8,484	¥ 9,497	\$ 70,756
Semi-finished goods .....	517	735	4,315
Work in process .....	372	403	3,104
Raw materials and supplies .....	3,683	3,876	30,714
	<u>¥13,056</u>	<u>¥14,511</u>	<u>\$108,889</u>

## 6. Short-Term Bank Loans and Long-Term Debt

Short-term bank loans, principally unsecured, were notes payable to banks bearing interest at 1.0 per cent. and 0.9 per cent. per annum at December 31, 2002 and 2001, respectively.

Long-term debt at December 31, 2002 and 2001 is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
1.90% yen bonds due 2003.....	¥10,000	¥10,000	\$ 83,403
2.25% yen bonds due 2004.....	10,000	10,000	83,403
1.35% yen bonds due 2006.....	5,000	5,000	41,701
Loans with collateral from banks, insurance companies and others .....	15,073	18,048	125,710
Lease obligation.....	615	—	5,131
	<u>40,688</u>	<u>43,048</u>	<u>339,348</u>
Less: current portion.....	(19,446)	(2,437)	(162,188)
	<u>¥21,242</u>	<u>¥40,611</u>	<u>\$177,160</u>

Assets pledged as collateral for short-term bank loans and long-term debt at December 31, 2002 and 2001 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Property, plant and equipment, at net book value .....	¥41,400	¥42,100	\$345,286
Marketable securities and investments in securities.....	3,635	4,764	30,318
	<u>¥45,035</u>	<u>¥46,864</u>	<u>\$375,604</u>

The aggregate annual maturities of long-term debt subsequent to December 31, 2002 are summarized as follows:

For the year ending December 31,	Millions of yen	Thousands of U.S. dollars
2003 .....	¥19,446	\$162,188
2004 .....	12,231	102,006
2005 .....	1,608	13,411
2006 .....	5,709	47,611
2007 .....	1,048	8,742
2008 and thereafter.....	646	5,390
	<u>¥40,688</u>	<u>\$339,348</u>

The Company incurred a lease obligation of ¥769 million (\$6,414 thousand) in connection with a lease agreement which stipulate the transfer of ownership of leased assets to the lessee during the year ended December 31, 2002.

## 7. Retirement Benefit Plans

The Company and its domestic subsidiaries have defined benefit plans, i.e., tax-qualified pension plans and lump-sum payment plans, covering substantially all employees who are entitled to lump-sum or annuity payments, the amounts of which are determined by reference to their basic rates of pay, length of service, and the conditions under which termination occurs.

The following table sets forth the funded and accrued status of the plans, and the amounts recognized in the consolidated balance sheets as of December 31, 2002 and 2001 for the Company's and the subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Retirement benefit obligation .....	¥(17,939)	¥(17,121)	\$(149,613)
Plan assets at fair value.....	9,635	9,730	80,356
Unfunded retirement benefit obligation .....	(8,304)	(7,391)	(69,257)
Unrecognized net retirement benefit obligation at transition .....	442	796	3,690
Unrecognized actuarial gain or loss .....	4,463	2,425	37,218
Accrued retirement benefits .....	<u>¥ (3,399)</u>	<u>¥ (4,170)</u>	<u>\$ (28,349)</u>

The components of retirement benefit expenses for the years ended December 31, 2002 and 2001 are outlined as follows:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Service cost.....	¥ 904	¥ 833	\$ 7,545
Interest cost .....	457	497	3,810
Expected return on plan assets .....	(177)	(191)	(1,480)
Amortization of net retirement benefit obligation at transition .....	354	8,436	2,952
Amortization of actuarial gain or loss .....	190	22	1,587
Total .....	<u>¥1,728</u>	<u>¥9,597</u>	<u>\$14,414</u>

The assumptions used in accounting for the above plans were as follows:

	March 31,	
	2002	2001
Discount rates .....	Mainly 2.5%	Mainly 3.0%
Expected return on plan assets.....	Mainly 3.0%	Mainly 3.0%

## 8. Income Taxes

The Company and its domestic consolidated subsidiaries are subject to a number of taxes based on earnings, i.e. corporation tax, inhabitants' taxes and enterprise tax, which, in the aggregate, resulted in statutory tax rate of approximately 41.7 per cent. for 2002 and 2001.

The effective tax rate reflected in the consolidated statement of operations for the year ended December 31, 2002 differs from the statutory tax rate for the following reasons:

Statutory tax rate .....	41.7%
Effect of:	
Permanent difference — entertainment expense.....	15.6
Permanent difference — dividend income.....	(16.0)
Inhabitants' taxes per capita.....	6.9
Amortization of excess of cost over net assets acquired.....	7.4
Equity in losses of affiliates .....	79.6
Valuation allowance.....	137.5
Different tax rates applied to income of foreign consolidated subsidiaries.....	2.4
Other, net.....	1.7
Effective tax rate.....	<u>276.8%</u>

Significant components of the deferred tax assets and liabilities held by the Company and its consolidated subsidiaries as of December 31, 2002 and 2001 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Deferred tax assets:			
Valuation loss on securities.....	¥1,449	¥ 423	\$12,092
Elimination of unrealized profit .....	1,267	1,492	10,567
Accrued severance indemnities.....	3,415	3,682	28,483
Accrued enterprise tax.....	136	32	1,131
Allowance for doubtful receivables .....	31	80	257
Accrued bonuses .....	60	50	499
Net operating loss carryforwards .....	2,081	2,065	17,354
Others .....	710	505	5,925
	<u>9,149</u>	<u>8,329</u>	<u>76,308</u>
Valuation allowance .....	<u>(3,503)</u>	<u>(2,146)</u>	<u>(29,218)</u>
Total deferred tax assets .....	<u>5,646</u>	<u>6,183</u>	<u>47,090</u>
Deferred tax liabilities:			
Reserve under Special Taxation Measures Law .....	(2,653)	(2,458)	(22,123)
Undistributed earnings of overseas partnerships.....	(624)	(668)	(5,206)
Gain on contribution of securities to retirement benefit trust .....	(895)	(895)	(7,467)
Valuation difference on other securities.....	(715)	(469)	(5,969)
Other.....	(0)	(8)	(0)
Total deferred tax liabilities.....	<u>(4,887)</u>	<u>(4,498)</u>	<u>(40,765)</u>
Net deferred tax assets.....	<u>¥ 759</u>	<u>¥1,685</u>	<u>\$ 6,325</u>

## 9. Capital Surplus and Retained Earnings

In accordance with the Code, the Company has provided a legal reserve, which was included in retained earnings. The Code provides that an amount equal to at least 10% of the amount to be disbursed as a distribution of earnings be appropriated to the legal reserve until the total of such reserve and the capital surplus account equals 25% of the common stock account. The legal reserve amounted to ¥3,990 million (\$33,278 thousand) and ¥3,990 million as of December 31, 2002 and 2001, respectively.

The Code provides that neither capital surplus nor the legal reserve is available for dividends, but both may be used to reduce or eliminate a deficit by resolution of the shareholders or may be transferred to common stock by resolution of the Board of Directors. On October 1, 2001, an amendment (the "Amendment") to the Code became effective. The Amendment provides that if the total amount of capital surplus and the legal reserve exceeds 25% of the amount of common stock, the excess may be distributed to the shareholders either as a return of capital or as dividends subject to the approval of the shareholders. In addition, the Amendment eliminates the stated par value of the Company's outstanding shares, which resulted in all outstanding shares having no par value as of October 1, 2001. The Amendment also provides that all share issuances after September 30, 2001 will be of shares with no par value. Prior to the date on which the Amendment came into effect, the Company's shares had a par value of ¥50.

## 10. Contingent Liabilities

At December 31, 2002, the Company and consolidated subsidiaries had the following contingent liabilities:

	Millions of yen	Thousands of U.S. dollars
Trade notes receivable and export bills discounted .....	¥ 157	\$ 1,309
Guarantees of indebtedness .....	4,372	36,460
	<u>¥4,529</u>	<u>\$37,769</u>

## 11. Research and Development Expenses

Research and development expenses included in selling, general and administrative expenses and manufacturing costs for the year ended December 31, 2002 and 2001 were ¥5,327 million (\$44,429 thousand) and ¥5,371 million, respectively.

## 12. Leases

The following pro forma amounts represent the acquisition cost, accumulated depreciation and net book value of leased property as of December 31, 2002 and 2001, which would have been reflected in the consolidated balance sheets if finance lease accounting had been applied to the finance lease transactions currently accounted for as operating leases:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Acquisition cost:			
Machinery and equipment .....	¥1,952	¥2,229	\$16,282
Other assets .....	—	251	—
	<u>¥1,952</u>	<u>¥2,480</u>	<u>\$16,282</u>
Accumulated depreciation:			
Machinery and equipment .....	¥1,211	¥1,251	\$10,098
Other assets .....	—	39	—
	<u>¥1,211</u>	<u>¥1,290</u>	<u>\$10,098</u>
Net book value:			
Machinery and equipment .....	¥ 742	¥ 978	\$ 6,185
Other assets .....	—	212	—
	<u>¥ 742</u>	<u>¥1,190</u>	<u>\$ 6,185</u>

Lease payments relating to finance lease transactions accounted for as operating leases amounted to ¥359 million (\$2,992 thousand) and ¥439 million, which were equal to the depreciation expense of the leased assets computed by the straight-line method over the respective lease terms for the years ended December 31, 2002 and 2001, respectively.

Future minimum lease payments (including the interest portion thereon) subsequent to December 31, 2002 for noncancelable operating leases and finance lease transactions accounted for as operating leases are summarized as follows:

Year ending December 31,	Millions of yen		Thousands of U.S. dollars	
	Operating leases	Finance leases	Operating leases	Finance leases
2003 .....	¥ 8	¥299	\$ 67	\$2,489
2004 and thereafter .....	19	443	154	3,696
Total .....	<u>¥27</u>	<u>¥742</u>	<u>\$221</u>	<u>\$6,185</u>

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**13. Derivative Transactions**

The Company utilizes derivative financial instruments for the purpose of hedging its exposure to adverse fluctuations in foreign currency exchange rates and interest rates, but does not enter into such transactions for speculation or trading purposes.

The Company is exposed to credit loss in the event of nonperformance by the counterparties to the derivative financial instruments, but any such loss would not be material because the Company enters into transactions only with financial institutions with high credit ratings. The notional amounts of the derivative financial instruments do not necessarily represent the amounts exchanged by the parties and, therefore, are not a direct measure of the Company's risk exposure in connection with derivative financial instruments.

As of December 31, 2002 and 2001, the disclosure of fair value information for derivatives has been omitted since all derivatives have been accounted for as hedges.

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**14. Segment Information**

The Company and its consolidated subsidiaries are primarily engaged in the manufacture and sales of products in the chemical industry segment in Japan. As net sales, operating income and total assets from the chemical business of the Company and its consolidated subsidiaries constituted more than 90% of the consolidated totals for both the years ended December 31, 2002 and 2001, the disclosure of business segment information has been omitted.

The disclosure of geographical segment information has also been omitted as net sales and total assets of the foreign operations constituted less than 10% of the consolidated totals for both the years ended December 31, 2002 and 2001.

Overseas sales of the Company and its consolidated subsidiaries constituted less than 10% of the consolidated net sales for both the years ended December 31, 2002 and 2001.

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**15. Subsequent Event**

The following appropriations of retained earnings of the Company, which have not been reflected in the accompanying consolidated financial statements for the year ended December 31, 2002, were approved at a shareholders' meeting held on March 28, 2003:

	Millions of yen	Thousands of U.S. dollars
Cash dividends — ¥3.00 (\$0.025) per share .....	<u>¥787</u>	<u>\$6,563</u>

# Report of Certified Public Accountants



**Certified Public Accountants**  
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Phone:03 3503-1100  
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The Board of Directors  
Toagosei Co., Ltd.

We have examined the consolidated balance sheets of Toagosei Co., Ltd. and consolidated subsidiaries as of December 31, 2002 and 2001, and the related consolidated statements of operations, shareholders' equity and cash flows for the years then ended, all expressed in yen. Our examinations were made in accordance with auditing standards, procedures and practices generally accepted and applied 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 accompanying consolidated financial statements, expressed in yen, present fairly the financial position of Toagosei Co., Ltd. and consolidated subsidiaries at December 31, 2002 and 2001, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles and practices generally accepted in Japan applied on a consistent basis.

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2002 are presented solely for convenience. Our examination also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 3 to the consolidated financial statements.

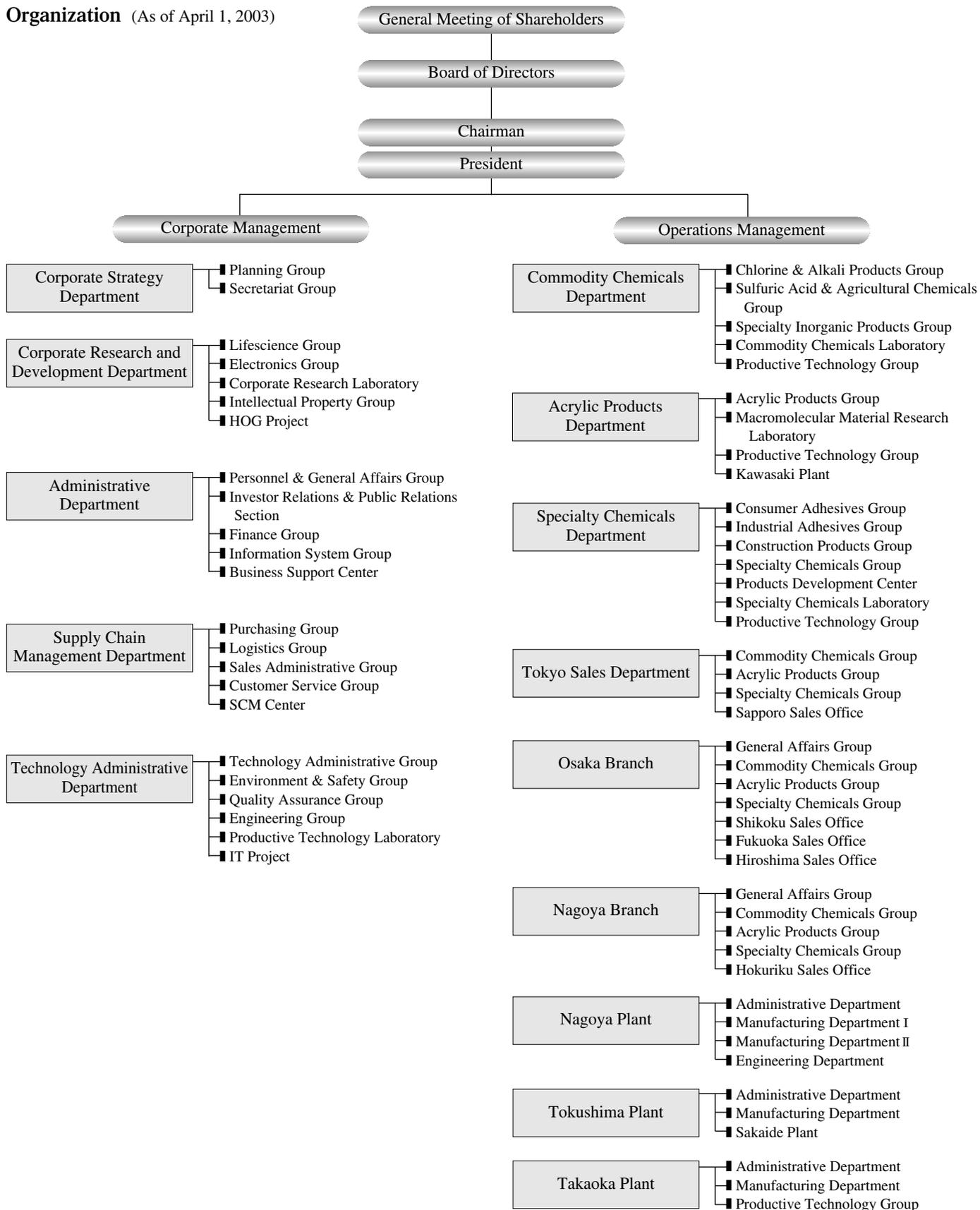
*Shin Nihon & Co.*

March 28, 2003

*See Note 1 to the consolidated financial statements which explains the basis of preparing the consolidated financial statements of Toagosei Co., Ltd. and consolidated subsidiaries under Japanese accounting principles and practices.*

# Corporate Data

## Organization (As of April 1, 2003)



## Directory

### Domestic Network

#### Head Office

1-14-1 Nishi-Shimbashi, Minato-ku, Tokyo  
105- 8419

Tel: 03-3597-7215 Fax: 03-3597-7217

#### Osaka Branch

Nakanoshima Mitsui Bldg. 11F, 3-3-3  
Nakanoshima, Kita-ku, Osaka 530-0005  
Tel: 06-6446-6551 Fax: 06-6446-6571

#### Nagoya Branch

1-16-30 Meieki-minami, Nakamura-ku,  
Nagoya 450-0003  
Tel: 052-541-1181 Fax: 052-581-1817

#### Hokuriku Sales Office

2-1-3 Fushiki, Takaoka, Toyama 933-0195  
Tel: 0766-44-7451 Fax: 0766-44-7490

#### Shikoku Sales Office

2-4-1 Showacho, Sakaide, Kagawa 762-0004  
Tel: 0877-46-3300 Fax: 0877-46-3200

#### Fukuoka Sales Office

2-14-2 Tenjin, Chuo-ku, Fukuoka 810-0001  
Tel: 092-721-1902 Fax: 092-721-1914

#### Hiroshima Sales Office

11-10 Motomachi, Naka-ku, Hiroshima  
730-0011  
Tel: 082-228-5430 Fax: 082-227-6737

#### Nagoya Plant

17-23 Showacho, Minato-ku, Nagoya  
455-0026  
Tel: 052-611-9804 Fax: 052-612-5733

#### Tokushima Plant

575-1 Nakashima, Kawauchicho, Tokushima  
771-0188  
Tel: 088-665-2111 Fax: 088-665-3867

#### Takaoka Plant

2-1-3 Fushiki, Takaoka, Toyama 933-0195  
Tel: 0766-44-7401 Fax: 0766-44-7410

#### Sakaide Plant

2-4-1 Showacho, Sakaide, Kagawa 762-0004  
Tel: 0877-46-3161 Fax: 0877-45-4727

#### Nagoya Research & Development Institute

1-1 Funamicho, Minato-ku, Nagoya  
455-0027  
Tel: 052-611-9901 Fax: 052-611-1693

#### Tsukuba Research Laboratory

2 Okubo, Tsukuba, Ibaraki 300-2611  
Tel: 0298-65-2600 Fax: 0298-65-2610

### Principal Overseas Subsidiaries

#### Toagosei Hong Kong Ltd.

Suite 907B-8A, 9/F., Tower 3, China Hong  
Kong City 33 Canton road, Tsimshatsui,  
Kowloon, Hong Kong  
Tel: 852-27631086 Fax: 852-27631798

#### Toagosei America Inc.

495 Metro Place South, Suite 160, Dublin,  
OH 43017, USA  
Tel: 614-718-3855 Fax: 614-718-3866

#### Toagosei Asia Pte Ltd

1 Robinson Road, #21-02 AIA Tower  
Singapore 048542  
Tel: 65-4385411 Fax: 65-4385422

## Principal Subsidiaries and Affiliates (As of December 31, 2002)

Name of Company	Line of Business	Our Share (%)	Capital (¥ in millions)
Tsurumi Soda Co., Ltd.	Manufacture & sale of chemical products	100.0	¥2,080
Aron Kasei Co., Ltd.	Manufacture & sale of synthetic resin molded products	61.1	¥4,220
Toagosei Asia Pte Ltd	Sale of chemical products	100.0	S\$62,713,000
Aron Ever-Grip Ltd.	Manufacture & sale of adhesives	100.0	£223,000
Oita Chemical Co., Ltd.	Manufacture of chemical products	90.0	¥450
Toagosei America Inc.	Manufacture & sale of chemical products; technological research	100.0	US\$6,100,000
Nihon Junyaku Co., Ltd.	Manufacture & sale of chemical products	97.6	¥351
TG Corporation	Sale of chemical products	100.0	¥174
Toa Logistics Co., Ltd.	Product distribution	100.0	¥16
Toa Engineering Co., Ltd.*1	Construction & repair of chemical facilities	100.0	¥50
Toa Techno-Gas Co., Ltd.	Manufacture & sale of industrial gases	100.0	¥40
Toa Estate Co., Ltd.	Real estate sales agency and real estate management	100.0	¥30
Toa Kogyo Co., Ltd.	Product distribution	100.0	¥25
Aron Packaging Co., Ltd.	Filling and packaging of adhesives	100.0	¥10
Singapore Acrylic Ester Pte Ltd	Manufacture of chemical products	75.0	S\$60,571,000
V-Tech Corp.*2	Manufacture & sale of chloralkali products	40.0	¥6,000
Chubu Ekisan Co., Ltd.*2	Manufacture & sale of industrial gases	30.0	¥480
Elmer's & Toagosei Co.	Sale of adhesives	50.0	US\$33,660,000

\*1 Toa Kakoki Co., Ltd. was renamed Toa Engineering Co., Ltd. on July 1, 2003.

\*2 Equity-method affiliates

## Investor Information

### Established

March 1942

### Common Stock

Authorized: 458,510,455 shares

Issued: 263,992,598 shares

Capital: ¥20,886 million

Number of shareholders: 36,653

Listings: Common stock listed on the exchanges in Tokyo, Osaka, Nagoya and Fukuoka

### Transfer Agent of Common Stock

The Chuo Mitsui Trust and Banking Co., Ltd.  
3-33-1, Shiba, Minato-ku, Tokyo 105-8574

### Certified Accountants

Shin Nihon & Co.  
Hibiya Kokusai Bldg., 2-2-3, Uchisaiwai-cho  
Chiyoda-ku, Tokyo 100-0011

### Major Shareholders

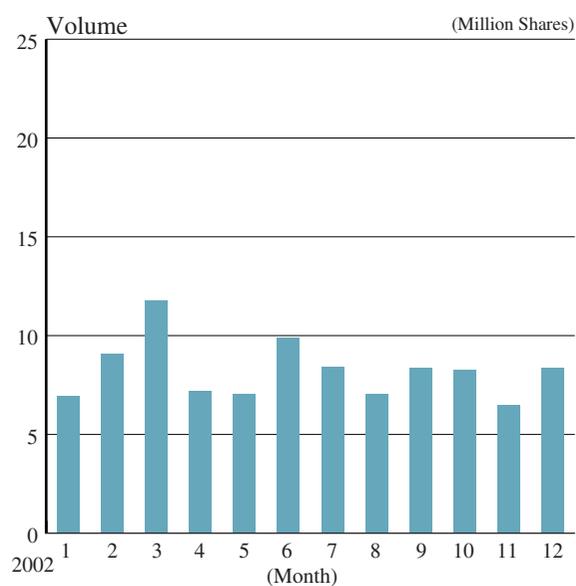
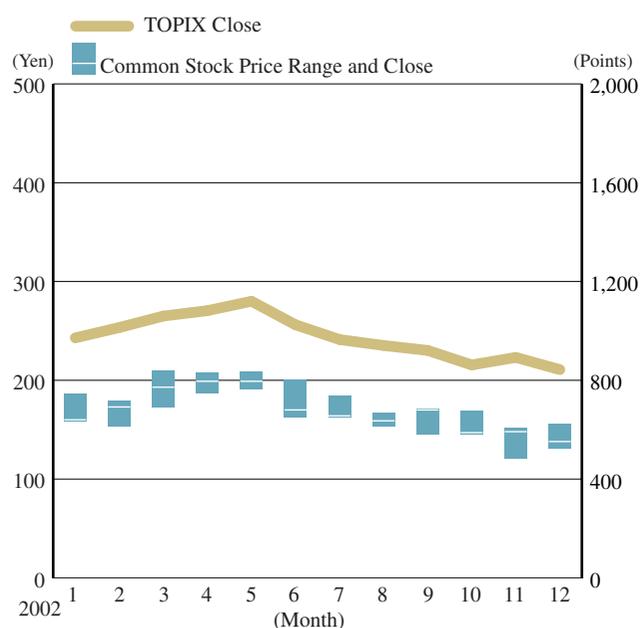
	(%)
Sumitomo Mitsui Banking Corp.	4.69
UFJ Bank Ltd.	4.27
Japan Trustee Services Bank Ltd. (Trust account)	2.86
Employee Shareholders' Committee	2.47
UFJ Trust Bank Ltd. (Trust account A)	2.36
The Master Trust Bank of Japan, Ltd. (Trust account)	2.25
Aioi Insurance Co., Ltd.	2.09
The Tokio Marine & Fire Insurance Co., Ltd.	2.00
Business Partner Shareholders' Committee	1.91
Mizuho Corporate Bank, Ltd.	1.91

(As of December 31, 2002)

### Stock Price Range & Trading Volume

(Tokyo Stock Exchange)

	1998	1999	2000	2001	2002
High	¥290	¥283	¥300	¥253	¥210
Low	¥160	¥156	¥153	¥160	¥121
TOPIX Close (Dec. 31)	1,086	1,722	1,283	1,032	843





1-14-1 Nishi-Shimbashi, Minato-ku,

Tokyo 105-8419, Japan

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Fax: 03-3597-7217

<http://www.toagosei.co.jp/>