



**TOSOH CORPORATION** 

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Tosoh Corporation, headquartered in Tokyo, is a leading supplier of specialty chemicals for highvalue-added applications in electronics, bioscience, plastics, automobiles, and numerous other sectors. The company complements its specialty chemical operations with strong market positions in chloralkali products, cement, olefins, and polymers. Tosoh operates plants in Asia, Europe, and North America and markets its products worldwide. Established in 1935, the company has pioneered product and process technologies that have shaped the growth of Japan's chemical industry.

#### On the cover

Salt arrives from Mexico and Australia at Tosoh's Nanyo Complex. Electrolyzing the salt will produce caustic soda and chlorine-two raw materials for the vinyl isocyanate chain, the heart of Tosoh's manufacturing operations.

#### Forward-looking statements

This annual report contains estimates, projections, and other forward-looking statements, which are subject to unforeseeable risks and uncertainties. Readers should understand that Tosoh's business and financial results could differ significantly from management's estimates and projections.

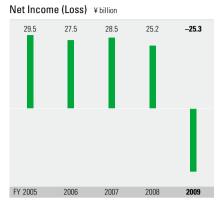
					Million	s of Yen				
Years ended March 31,	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Net sales	733,506	827,395	781,347	648,810	588,332	484,389	471,921	427,487	426,174	374,182
Operating income (loss)	(20,314)	59,108	60,279	47,460	56,899	30,055	28,048	15,631	27,565	27,330
Net income (loss)	(25,262)	25,183	28,488	27,533	29,533	7,297	4,809	459	9,392	6,019
					Per	cent				
Operating income (loss)/Net sales	(2.8)	7.1	7.7	7.3	9.7	6.2	5.9	3.7	6.5	7.3
Net income (loss)/ Net sales	(3.4)	3.0	3.6	4.2	5.0	1.5	1.0	0.1	2.2	1.6
Net income (loss)/ Simple average of year-end share- holders' equity*	(14.3)	13.1	16.6	19.2	26.0	7.6	5.2	0.5	10.3	6.6
					Million	s of Yen				
Interest-bearing debt	435,564	365,492	354,466	291,221	284,572	289,097	298,886	332,120	325,774	333,180
Total assets**	762,796	816,994	788,518	637,477	603,209	549,213	545,697	572,146	534,605	527,989
Shareholders' equity*	155,013	198,607	184,974	159,112	127,993	99,238	92,795	90,557	91,195	91,886
					Times/	Percent				
Interest-bearing debt/ Shareholders' equity* (times)	2.81	1.84	1.92	1.83	2.22	2.91	3.22	3.67	3.57	3.63
Shareholders' equity*/ Total assets (percent)	20.3	24.3	23.5	25.0	21.2	18.1	17.0	15.8	17.1	17.4
q	20.0	2110	20.0	20.0	21.2	10.1	17.0	10.0		.,
-					Ye	n				
Net earnings (loss) per share	(42.20)	42.05	47.60	45.74	49.09	11.96	7.87	0.77	15.62	10.02
Book value per share	258.98	331.69	308.81	265.75	213.79	165.67	154.93	151.76	151.70	152.97
Dividends per share	6.00	8.00	8.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00
					Million	s of Yen				
Capital expenditures	49.1	72.7	80.2	32.3	45.4	21.3	12.1	16.8	18.7	27.6
Depreciation and amortization	59.4	42.3	34.1	28.0	22.8	24.0	25.3	25.4	24.8	24.9
R&D expenditures	14.4	13.6	12.7	11.1	10.2	10.3	10.4	9.8	9.6	9.3
Employees	11,166	11,088	10,514	9,373	9,148	9,196	9,167	9,404	8,097	7,914

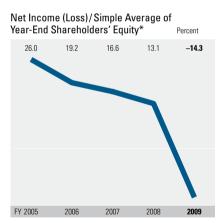
\* Net of valuation and translation adjustments

\*\* Reflects a reclassification of valuation and translation adjustments as of fiscal 2000



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#### **Message from Management**

Asserting Traditional Tosoh Strengths under a New Management Team

We coped with economic adversity in fiscal 2009 (April 1, 2008, to March 31, 2009) and undertook transition in our senior management team with an eye to steering the company toward renewed growth. Measures for addressing the recent market downturns are already yielding substantive results, and we are projecting that Tosoh will return to profitability in the present fiscal year.

Tosoh's profitability deteriorated sharply in fiscal 2009 amid the global economic tumult. We posted a net loss of ¥25.3 billion (US\$257 million @ US1 =¥98.23), compared with net income of ¥25.2 billion in the previous fiscal year, on an operating loss of ¥20.3 billion (US\$207 million), compared with operating income of ¥59.1 billion in the previous year. Net sales declined 11.3%, to ¥733.5 billion (US\$7.5 billion). In view of our deteriorating profitability, we lowered the aggregate annual dividend ¥2, to ¥6 (US\$0.06).

Chiefly responsible for the deterioration in profitability were

- Declines in sales volume, which resulted from slumping demand, and related declines in capacity utilization rates
- Declines in prices for our products
- An increased depreciation burden associated with a ¥100 billion expansion of our vinyl isocyanate chain completed in the previous fiscal year
- · Losses on the value of inventories that resulted from the decline in raw material prices that occurred toward the end of the fiscal year and

from the declines in selling prices for our products

- The appreciation of the yen, which diminished the yen-denominated value of overseas sales
- Losses on investment securities, which resulted from the collapse of equity markets

#### **Results by Segment**

By business sector, we posted operating losses of ¥17.5 billion (US\$178 million) in our Basic Group and ¥4.8 billion (US\$49 million) in our Petrochemical Group. The operating loss was smaller in our Specialty Group, at ¥911 million (US\$9 million), and we recorded operating income of ¥2.8 billion (US\$29 million) in our Service Group.

Geographically, sales by operations based in Japan accounted for 87.6% of net sales in fiscal 2009, and for 87.8% in the previous fiscal year. Those figures are by company location and include Japanese exports, net of sales, to consolidated overseas subsidiaries. By customer location, overseas sales accounted for 33.4% of net sales in fiscal 2009 and for 33.7% in the previous fiscal year.

Our Japanese operations posted an operating loss of ¥22.7 billion (US\$231 million), compared with operating income of ¥54.0 billion in the previous fiscal year. Sales at operations based in Japan declined 11.6%, to ¥642.3 billion (US\$6.5 billion). Our operations outside Japan-principally in North America, Europe, Southeast Asia, and Chinaremained profitable. The adverse economic environment took a toll, however, and operating income at our operations outside Japan declined 53.0%, to ¥2.4 billion (US\$24 million). Net sales at operations outside Japan declined 9.7%, to ¥91.2 billion (US\$929 million).

#### **Outlook for Renewed Profitability**

Our projections call for net income of ¥9 billion and operating income of ¥25 billion in the present fiscal year (to March 31, 2010), though we expect net sales to decline 11.4%, to ¥650 billion. Underlying our projected return to profitability are downward movement in raw material and energy costs, a firming of unit-volume demand, and improvements in our structure of earnings. We expect the



#### Changing of the Guard

losses on the value of inventories to be far smaller this fiscal year. And depreciation and other fixed costs will also decline substantially.

#### Strategy and Investment

We continue working to expand business in high-value-added specialty products while reinforcing strengths in commodity products where we assert a competitive edge. Highlighting our portfolio of specialty products are methylene diphenyl diisocyanate and other polyurethane materials,

The three signatures on this message from management signify transition in our senior management team. Madoka Tashiro (right), who had led the company as chairman and CEO since 2001, retired from those posts in June 2009. Succeeding him as chairman and CEO is Takashi Tsuchiya (left), who had served as president since 2001. The new president is Kenichi Udagawa, who moves up from the post of managing director. Tashiro retains a seat on the board of directors as executive adviser to help ensure a smooth transition. All of these changes took effect on receiving approval at the general meeting of shareholders on June 26, 2009.

water-treatment systems for supplying pure water and for processing effluent, ethyleneamines and their derivatives, chemical products for protecting the environment, diagnostic systems and other bioscience products, and several functional materials for applications in electronics. We anticipate profitable growth over the long term in all those products, notwithstanding the market downturn in the past fiscal year, and we are investing in expanding production capacity in our Specialty Group.

Underlying our competitiveness in specialty products and in commodity products is our vinyl isocyanate chain. That chain is among the largest and most highly integrated of its kind in Asia. It comprises interlinked processes for producing vinyl isocyanate-related products from salt and naphtha. We fortified the isocyanate chain and our position in polyurethane materials by increasing our equity holding in Nippon Polyurethane Industry Co., Ltd. (NPU), to 80.3% in May 2008, from 51.7%.

NPU is a leading supplier of methylene diphenyl diisocyanate to polyurethane manufacturers in Japan and in other Asian nations. We recently doubled NPU's production capacity for that material to 400,000 metric tons a year to serve long-term growth in demand and to increase our cost competitiveness. In related investments, we doubled our production capacity for supplying NPU with raw materials and increased our electrical-generating capacity at our flagship Nanyo Complex. Those investments have placed our production operations for methylene diphenyl diisocyanate on a fully self-sufficient footing in regard to primary feedstock and electrical power.

Other investment projects completed in fiscal 2009 increased our supply capacity for caustic soda, for cumene (isopropylbenzene), for high-silica zeolites, and for zirconia. Investment under way or planned will increase our supply capacity for ethyleneamines by spring 2010 and further by spring 2012.

We also maintained our strong commitment to R&D programs despite the adverse earnings environment. Our R&D expenditures increased 5.9% in fiscal 2009, to ¥14.4 billion (US\$147 million). The chief targets of R&D were new products and technologies, especially in medical diagnostics, as well as product and process improvements.

Geographically, we are integrating our operations across borders, especially in Asia, to respond flexibly to trends in demand. We expect Asian



#### Madoka Tashiro

A 53-year veteran of Tosoh, Tashiro became the company's president in 1992 and the chairman and CEO in 2001. He joined what was then Toyo Soda Manufacturing on earning a degree from the College of Arts and Sciences at the University of Tokyo in 1956 and soon became part of the company's fledgling international operations. Tashiro opened Tosoh's first overseas office, in New York, in 1964 and later became the general manager of the headquarters division responsible for coordinating international operations. He subsequently headed the divisions responsible for new business development, for scientific instruments, and for corporate strategy and planning.

Tosoh faced daunting challenges when Tashiro became president in 1992. Japan's economic bubble had burst, and the nation had entered what would be lamented as Japan's "lost decade" of the 1990s. The prolonged economic stagnation forced unprecedented restructuring in the Japanese chemical industry. Tashiro was instrumental in shaping the strategy that enabled Tosoh to survive and later resume growing. His legacy includes initiating work on what is now Asia's most highly integrated vinyl isocyanate chain.

Tashiro has served as the chairman of the Polymer Technology Executives' Society, Japan, and as a counselor of the Chemical Society of Japan. He has also served as the chairman of the Vinyl Environmental Council, Japan, as the chairman of the Japan Soda Industry Association, and as the vice chairman of the Japan Chemical Industry Association.

demand for methylene diphenyl diisocyanate, for example, to grow more than 10% a year over the long term, and we are therefore fortifying our supply channels for that product in Asian markets.

Similarly, we expect strong growth in Asian demand for polyvinyl chloride, and we have built a synergistic network of production platforms for that product. That network centers

on our Nanyo Complex, which supplies raw materials to Tosoh operations in China and Southeast Asia. As Japan's largest producer of caustic soda, we continue to strengthen our supply relationships with Australian aluminum manufacturers and other large users of that product in Asia and Oceania



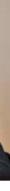
#### Takashi Tsuchiya

Tsuchiya became Tosoh's president in 2001. He joined Tosoh in 1965 on earning a degree in chemical engineering from the Tokyo Institute of Technology. Before becoming the president, he served as the general manager of divisions responsible for the production of the engineering plastic polyphenylene sulfide at Tosoh's Yokkaichi Complex, for the corporate administration of production and technology, and for business planning and corporate strategy. Tsuchiya is the president of the Society of Chemical Engineers, Japan. He also serves as a director of the Japan Petrochemical Industry Association; as a director of Japan's leading business association, the Nippon Keidanren; and as the chairman of the Vinyl Environmental Council, Japan.

#### Streamlining and Upgrading

Accompanying our commitment to capital spending and R&D programs is an equally vigorous commitment to structuring our operations optimally. In that spirit, we placed most of our European operations under the ownership and management of Belgiumbased Tosoh Bioscience N.V. as of March 2009. We have renamed that company Tosoh Europe N.V., and it has become a shared-services platform for Tosoh operations throughout the Continent.

Tosoh Europe will raise overall efficiency by providing human re-





#### Kenichi Udagawa

Udagawa is also a graduate of the Tokyo Institute of Technology. He joined Tosoh on earning a degree in polymer science from that university in 1972. He has extensive experience in international operations, having worked on a joint venture petrochemical project in Iran in the 1970s; having served from 1989 to 1993 as the president of Tosoh USA, Inc., where he oversaw corporate acquisitions that expanded Tosoh's North American presence; having supervised Tosoh's international investment in polyvinyl chloride production projects in the latter half of the 1990s; and having led the establishment of the Chinese production subsidiary Tosoh (Guangzhou) Chemical Industries, Inc., in 2004.

sources, accounting, and data processing services that the companies formerly each handled separately. This reorganization follows a similar move in North America, which has yielded large gains in efficiency.

#### Issues and Opportunities

Tosoh faces serious challenges and exciting opportunities. Epitomizing the challenges is the task of maintaining profitable growth in commodity chemical products. We are bolstering cost competitiveness in our Petrochemical Group by diversifying our feedstock and our energy

sources. Strengths in process and product technologies, meanwhile, differentiate our products advantageously in established applications and help us develop high-value-added business in new applications for petrochemical products.

In the Basic Group and Specialty Group, we continue working to make the most of our vinyl isocyanate chain. That means maximizing throughput rates for the chain's output, including caustic soda, chlorine, vinyl chloride monomer, polyvinyl chloride resins, and methylene diphenyl diisocyanate, and for



Distinguishing Tosoh's business portfolio is a sound mix of commodity and specialty products. Also characterizing the company's business is a richly synergistic interaction among three product groups. At the heart of that interaction is Tosoh's highly integrated vinyl isocyanate chain.



Tsuchiya (right) and Udagawa have pledged to keep Tosoh focused on raising efficiency in commodity chemical operations, on expanding its presence in high-value-added specialty chemicals, and on globalizing its operations further.

the raw material input, including aniline and carbon monoxide. Our in-house capacity in supplying input for the vinyl isocyanate chain and in processing the diverse output of that chain supports unmatched flexibility in optimizing capacity-utilization rates.

Exemplifying the opportunities before Tosoh are the businesses that our Specialty Group is building in

high-value-added products. As noted, those products span immensely promising market sectors, including environmental protection, health care, and electronics.

Our Service Group, too, is the subject of continuing measures to raise efficiency. Progress in integrating the logistics and other services provided by the Service Group will raise our operational efficiency and will strengthen the Service Group's competitiveness in business with third-party customers.

Ensuring safety and maintaining environmental quality are overriding priorities for all our operations and in any business environment. We are therefore proud to note our continuing progress in reducing emissions of substances of environmental concern, as described on pages 33 to 47. We also note with pride our growing business in products for safeguarding the environment, such as chelating agents for removing heavy metals from water.

Global demand for chemicals will continue to grow over the long term, and Tosoh asserts genuinely unique strengths in several products that are absolutely indispensable in the industrial, consumer, and medical sectors. We look forward to fulfilling your highest expectations of our company by applying those strengths creatively and profitably.

July 2009

Madoka Joshi Sakashi Sauchiya

Madoka Tashiro Executive Adviser and Member of the Board (newly named in June 2009; formerly chairman and CEO)

Takashi Tsuchiya Chairman and CEO (newly named in June 2009; formerly president)

 $\kappa$ (dag-

Kenichi Udagawa President (newly named in June 2009; formerly managing director)

# **REVIEW OF OPERATIONS**

# SPECIALTY GROUP

The Specialty Group epitomizes Tosoh's strategic balance between large-volume business in well-established markets and footholds in promising new sectors. Anchoring the Specialty Group's balanced business portfolio are Tosoh's highly integrated supply capabilities for a vast range of essential chemicals and the company's fertile R&D programs.



Continuing R&D upgrades and broadens Tosoh's product portfolio in chelating agents, which remove heavy metals from water.



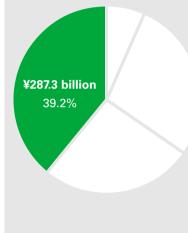
Tosoh accompanies its strong presence in separation media for medical and industrial chromatography with a successful line of high-performance liquid chromatography systems.

The electrolysis operations at Tosoh's Nanyo Complex yield an abundant supply of hydrogen, and the company uses some of that hydrogen to fuel high-temperature kilns for processing natural quartz into high-purity ingots.

Tosoh is the world's largest manufacturer of zirconia raw material for high-performance ceramics, and it recently expanded its production capacity for that high-technology material.

## Specialty Group

#### Share of Net Sales

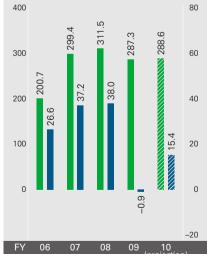


#### Performance Trends

¥ billion



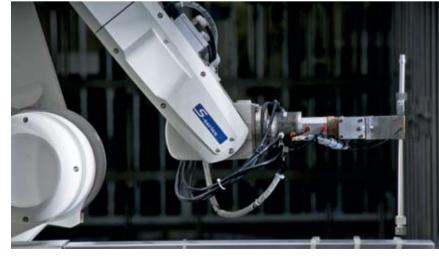
Operating Income (Loss) (right scale)



Our Specialty Group, as its name suggests, develops, produces, and markets high-value-added products for diverse applications. It is Asia's sole producer of **ethyleneamines**, which render service in a vast range of applications, including asphalt additives, oil and fuel additives, anticorrosion agents, polyamide resins, surfactants, epoxy, wet-strength resins for paper, and mineral processing. The group is the only Japan-based supplier of **bromine**, including bromine flame retardants. It has also built strong market positions in methylene diphenyl diisocyanate and other polyurethane raw materials; in industrial cleaning solvents; in chelating agents for removing heavy metals and other pollutants from water; in water-treatment systems; in organic intermediates; in raw materials for advanced ceramics for applications in electronics, power generation, automobiles, dentistry, and other sectors; in electrolytic manganese dioxide, which is an essential raw material for primary batteries; in **electronic materials**; and in analytical and diagnostic products for the health care and pharmaceutical industries.

The Specialty Group registered an operating loss of ¥911 million (US\$9 million) in fiscal 2009, compared with operating income of ¥38.0 billion the previous fiscal year, and group sales declined 7.8%,

to ¥287.3 billion (US\$2.9 billion). Sales declined mainly on account of downward trends in prices for the Specialty Group's main products, though the group raised prices for some products



Chromatography systems use separation media loaded in metal columns, like the one grasped by this robot on a Tosoh production line



Water-treatment systems for processing industrial effluent are a large and growing business for Tosoh.

to offset the rise in raw material costs. Also contributing to the sales decline was an overall shrinkage in unit sales volume. The downward trend in selling prices reflected a general weakening of demand and the appreciation of the yen against the U.S. dollar, the euro, and other principal currencies.

We project a return to operating profitability for the Specialty Group in fiscal 2010, though we expect little growth in the group's sales. Underlying our expectation of improved profitability is the recent downward trend in raw material and energy costs and the group's progress in developing business in highervalue-added applications.

#### **Organic Chemicals**

Our sales declined worldwide in fiscal 2009 in every principal product catego-

ry in organic chemicals: ethyleneamines and their derivatives, bromine and brominated derivatives, chelating agents, and polyurethane raw materials. Rising raw material costs obliged us to raise our prices, especially in ethyleneamines. Methylene diphenyl diisocyanate, a raw material for polyurethane and other applications, is a core product for us in organic chemicals. Asian demand for that product is trending upward, despite the market reverses of late, and we have expanded our production capacity in recent years to meet that demand. We increased our equity stake in a subsidiary that produces methylene diphenyl diisocyanate in May 2008 (see table on

page 15).

Augmenting our market position in polyurethane raw materials are emission-free reactive catalysts. Those products address environmental concerns about amine emissions.

We expect long-term growth in global demand for ethyleneamines and their derivatives, notwithstanding the recent market weakness. Expansion under way will increase our production capacity for ethyleneamines by spring 2010 and, in a second phase of expansion, by spring 2012 (see table on page 15). Underpinning our strength in ethyleneamines and their derivatives is our leadership in the Japanese production of caustic soda and ethylene dichloride, two raw materials for those products.

Tosoh is Japan's sole producer of bromine and brominated derivatives. We foresee long-term growth in demand for those products, too, especially in flame retardants and in purified terephthalic acid catalysts.

The sales decline in chelating agents reflected the global downturn in industrial capital spending and capacityutilization rates. We promote our chelating agents and environmentally benign hydrocarbon cleaning agents through a department established to develop business in products for maintaining and restoring environmental quality.

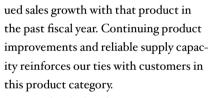
Our product portfolio in organic chemicals also includes several intermediates. Those chemicals include products manufactured through bromination, chlorination, fluorination, organometallic reactions, lowtemperature reactions, and other processes. Our strategy includes efforts to develop business in products that allow for fostering synergies among those technologies.

#### **Specialty Materials**

Tosoh is the world's largest producer of electrolytic manganese dioxide for batteries, and the company posted contin-



Belgium-based Tosoh Europe, formerly Tosoh Bioscience, is the holding and management company for most of the companies in Tosoh's European network



Our sales declined in zirconia, a raw material for yttria-stabilized ceramics that are less brittle than conventional ceramics. Tosoh pioneered the commercial production of zirconia in the late 1980s, and we remain the world's largest supplier. Applications for zirconia include fiber-optic connectors, fuel cell



Tosoh SMD, Inc., which shares this Ohio headquarters with other Tosoh subsidiaries, produces sputtering targets for manufacturing semiconductor devices and LCDs.

components, automobile oxygen sensors, and dental implants.

We also registered a sales decline in zeolites, despite continued sales growth for that product in Japan. Zeolites render service in a broad range of adsorption, separation, and catalytic applications.

#### **Bioscience Products**

We supply automated immunoassay systems, high-performance liquid chromatography (HPLC) systems, and molecular testing systems for in vitro diagnostics. We are Japan's largest supplier of HPLC systems for analyzing, isolating, and purifying biomolecules. Our products in that category include systems for gel permeation chromatography and ion chromatography. And we supply chromatographic separation media in markets worldwide.

Sales growth continued worldwide in our bioscience business in fiscal 2009. Leading that growth were in vitro diagnostic reagents and equipment for automated immunoassay systems and glycohemoglobin systems for detecting and monitoring diabetes. Sales of our HPLC separation materials continued growing overseas.

An agreement concluded in June 2009 with the Japanese subsidiary of California-based Agilent Technologies Inc., will augment our product portfolio Under that agreement, Agilent will supply us with a compact HPLC system to market in Japan under both companies' names. The Agilent system complements our products and will strengthen our market position in the pharmaceuti cal sector and in the industrial sector.

#### **Electronic Materials**

In electronic materials, we supply natural- and synthetic-quartz materials and sputtering targets. Manufacturers use our quartz materials in racks-"boats"-for holding semiconductor wafers, in panels for producing flat-panel displays, and in other high-technology applications. Our sales of quartz glass declined in reflection of the slump in the semiconductor industry.

Manufacturers use our sputtering targets to deposit thin films on semiconductor wafers, on flat-panel displays, and on photovoltaic cells. Our sales of sputtering targets grew rapidly in the photovoltaic sector in fiscal 2009 but declined overall on account of slumping demand in semiconductors and flat-panel displays.



#### Investment

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High-silica ze Capacity expan

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Raw materials for polyurethane are a core business in the Specialty Group, and Tosoh has increased its production capacity for those materials by expanding and upgrading its vinyl isocyanate chain.

Tosoh is a leading supplier of zeolites, which are catalytic materials used in automotive emissions systems and in numerous other applications.

We anticipate continuing growth in demand for the Specialty Group's main products over the long term, and we have therefore bolstered the group's production capacity and technological capabilities through internal investment and through corporate acquisitions. Below is a summary of recent and ongoing investment activity in the Specialty Group

#### Polyurethane raw materials and derivatives-

ıg	in	subsidiary	Nippon	Polyurethane	Industry
----	----	------------	--------	--------------	----------

<b>a</b> , , , , ,	
wnership	From 51.7% to 80.3%
ditional shares	May 2008
eolites	
ansion completed	March 2009
ansion completed	March 2009
nes (1)	
ease	From 53,000 metric tons/year to 79,000 metric tons/year
to go online	Spring 2010
nes (2)	
ease	From 79,000 metric tons/year to 89,000 metric tons/year
to go online	Spring 2012

# BASIC GROUP

Tosoh's Basic Group is home to the company's vinyl isocyanate chain, and the group's business centers on that chain's chlor-alkali inputs and outputs. The Basic Group leverages its strengths through a network of interlinked production platforms in Asia.



A doubling of production capacity for aniline was part of a recent expansion of the vinyl isocyanate chain operations at Tosoh's Nanyo Complex.



The electrolysis of salt imported from Mexico and Australia is the first process in Tosoh's vinyl isocyanate chain.

No. of Concession, Name

Tosoh is Japan's largest producer of vinyl chloride monomer, and it increased its production capacity for that product as part of the recent expansion of its vinyl isocyanate chain.

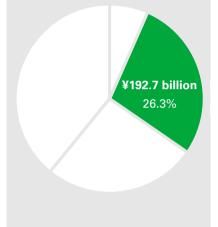
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The expansive salt yard at the Nanyo Comple

Brown biomass shares the fuel yard with coal alongside the electric power plant at Tosoh's Nanyo Complex—part of the company's efforts to reduce reliance on fossil fuels.

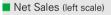
## Basic Group

#### Share of Net Sales



#### Performance Trends

¥ billion





The Basic Group has extensive operations in chlor-alkali products, principally caustic soda, which is used in chemicals, paper, rayon, and numerous other applications; vinyl chloride monomer, a raw material for polyvinyl chloride; calcium hypochlorite, which is used in drinking-water systems, swimming-pool disinfectants, bleaches, and cleansers; polyvinyl chloride resins for a vast range of plastic products; and **chlorine** and other raw materials for the Specialty Group's methylene diphenyl diisocyanate operations. The Basic Group also produces **cement**, including ordinary portland cement, portland fly ash cement, and portland blast furnace slag cement, and it supplies all of its output to Taiheiyo Cement Corporation, Japan's largest producer.

In fiscal 2009, the Basic Group posted an operating loss of ¥17.5 billion (US\$178 million), compared with operating income of ¥2.7 billion in the previous fiscal year. The group's net sales declined 1.6%, to ¥192.7 billion (US\$2.0 billion). Unit sales volume increased overall in the Basic Group in fiscal 2009, but weakening prices undercut sales

and earnings. The group has moved responsively to optimize its sourcing of raw materials and energy and to optimize the composition of its product output.

Declining prices appear likely to lower the Basic Group's sales total in fiscal 2010 despite continuing growth in unit volume. We expect the group to return



Tosoh is the Japanese leader in the in-house generation of electricity, and it optimizes its generating operations with state-of-the-art control systems



Newly expanded production facilities for carbon monoxide are another link in Tosoh's vinyl isocyanate chain

to operating profitability, however, partly because of the downward trend in raw material and energy costs.

#### Chlor-alkali Products

Our business in caustic soda in fiscal 2009 was a contrast of declining sales in Japan and rising sales overseas. We raised prices for that product in Japan to absorb some of the increase in raw material and energy costs. Tosoh is Japan's largest producer of caustic soda, and we have led advances in process technology and in quality assurance in that product category.

In our vinyl chloride monomer business, demand weakened worldwide in the latter half of the fiscal year. Resurgent Chinese demand, however, occasioned strong growth in exports

in the closing months of the year. The appreciation of the yen and the overall weakening of demand weighed heavily on selling prices. We are Japan's largest producer of vinyl chloride monomer, by far, accounting for more than 40% of domestic production.

Our sales of polyvinyl chloride resins declined in Japan, but success in developing new business in overseas markets offset part of that decline. Polyvinyl chloride is a standard material for pipes and other building materials, and the sales decline in Japan reflected a curtailing of public works spending and a slump in housing starts. We raised our prices in the first half of fiscal 2009 in response to the rise in raw material and energy costs, but a subsequent sharp decline in the price of naphtha—an

essential raw material—obliged us to lower prices.

We are the Japanese leader in polyvinyl chloride resins, accounting for about one-fourth of domestic output. Our polyvinyl resin plants in Japan and in China, Indonesia, and the Philippines present steady demand for our vinyl chloride monomer operations in Japan.

#### Cement

Our cement operations center on a plant at the Nanyo Complex. Demand for cement in the Japanese market slumped in the public sector and in the private sector in fiscal 2009, and our sales performance mirrored those trends. Coal is the chief fuel for cement kilns, and we raised our selling prices for cement to partly offset the rise in coal prices.

Our cement operations benefit from our in-house supply capacity for soda and, from the Nanyo Complex's electric cogeneration plant, for coal ash. We participate in environmental initiatives by using slag, sludge, and other industrial waste as supplementary raw material at our cement plant and by burning scrap tires, processed municipal waste, and other traditionally difficult-to-dispose of items as supplementary fuel.



This polyvinyl chloride plant at Tosoh (Guangzhou) Chemical Industries, Inc., uses vinyl chloride monomer supplied by Tosoh operations in Japan.



The Tosoh subsidiary Taiyo Vinyl Corporation, based at Tosoh's Yokkaichi Complex, is Japan's leading manufacturer of polyvinyl chloride.

#### Investment

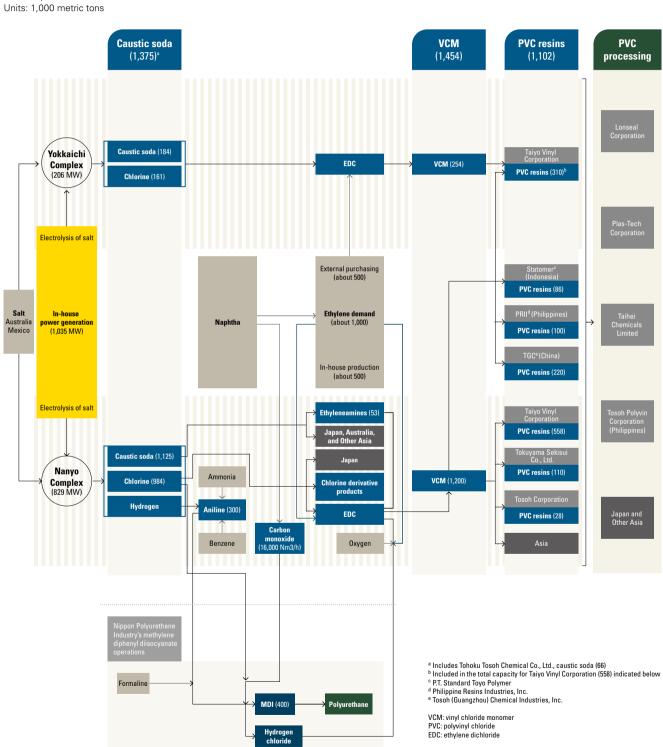
The Basic Group is the main platform for our vinyl isocyanate chain, which serves all of our product groups. Expanding and upgrading that chain remains a central theme in our capital spending programs. The Basic Group expanded its production capacity for aniline in fiscal 2008 to support expanded production capacity for methylene diphenyl diisocyanate in the Specialty Group. And we strengthened our vinyl isocyanate chain further in fiscal 2009 by bringing online additional capacity for generating electric power and for producing caustic soda.

#### In-house electric power generation

Capacity increase	From 881,000 kilowatts to 1,035,000 kilowatts		
New capacity went online	April 2008		
Caustic soda			
Capacity increase	From 1,205,000 metric tons/year to 1,375,000 metric tons/year		
New capacity went online	April 2008		

#### A Highly Integrated Vinyl Isocyanate Chain

As of July 2009 Units: 1.000 metric to



# PETROCHEMICAL GROUP

The petrochemical business at Tosoh encompasses extensive lines of olefin and polymer products. Tosoh is making steady progress in focusing those product lines on increasingly higher-value-added specifications.



This plant at Tosoh's Yokkaichi Complex produces tertiary butyl alcohol to use in producing methyl methacrylate monomer.

The superengineering plastic polyphenylene sulfide resin, indispensable in automotive components, is a highlight of Tosoh's extensive line of functional polymers.



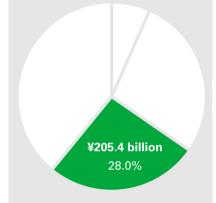
Tosoh is focusing its polyethylene operations on grades where it can differentiate its products advantageously amid escalating global competition.

Innovative measures for recirculating heat and conserving energy in other ways have raised energy efficiency greatly in ethylene production at Tosoh's Yokkaichi Complex.

The huge ethylene operations at the Yokkaichi Complex

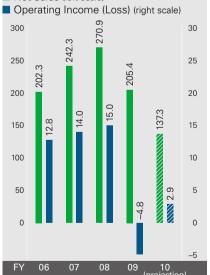
## Petrochemical Group

#### Share of Net Sales



#### Performance Trends

¥ billion Net Sales (left scale)



Our Petrochemical Group comprises olefin and polymer operations. Its olefin operations produce widely used raw materials, including **ethylene**, an integral part of our vinyl isocyanate chain; **benzene**, a raw material for aniline, which is in turn a raw material used by our methylene diphenyl diisocvanate operations; cumene; and propylene. The Petrochemical Group's polymer operations produce polyethylene products, including ethylene vinyl acetate, low-density polyethylene, linear lowdensity polyethylene, and high-density polyethylene, and functional polymers, including chloroprene rubber, adhesive polymers, and engineering plastic resins. We supply a diversity of polyethylene and rubber products for innumerable applications in industrial and consumer products and adapt their specifications responsively to customer needs.

The Petrochemical Group registered an operating loss of ¥4.8 billion (US\$49 million) in fiscal 2009, compared with operating income of ¥15.0 billion the previous fiscal year, and group sales declined 24.2%, to ¥205.4 billion (US\$2.1 billion). Sales and profitability weakened as declines in prices for petrochemical products more than offset a small unit sales gain. Lower prices for raw materials and energy engender confidence in prospects for a return to profitability in fiscal 2010. We expect the Petrochemical Group's sales to shrink, however, amid sluggish demand in the Japanese market and in the face of escalating competition from Middle Eastern producers.

#### Olefins

Our sales of olefin products declined sharply in fiscal 2009. That decline was partly due to reductions in production capacity, which resulted from scheduled plant-refurbishing work and from the dissolution of a Japanese joint venture that had produced styrene monomer. It reflected, too, an especially pronounced

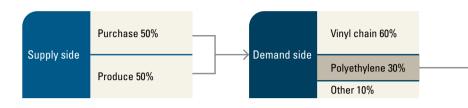
weakening of demand in markets for derivative products. Also affecting sales and earnings adversely was a weakening of demand for cumene in overseas markets.

We were largely successful in maintaining our selling prices in fiscal 2009, even as the price of naphtha raw material declined, and that helped toward restoring our operating margins. Continuing progress in diversifying our feedstock has helped us improve our structure of earnings in olefins. That has included adapting our production equipment to accommodate lower, less-expensive grades of naphtha without compromising product quality. Our efforts have yielded positive results, and profitability in our olefin operations has begun to recover in the present fiscal year.

#### Polymers

Sales also declined in our polymer operations in fiscal 2009. Our shipments of polyethylene products declined, and we were only partly successful in efforts to maintain our pricing levels. Shipments

#### **Ethylene Operations**



At the heart of Tosoh's petrochemical business are large ethylene operations. A balanced mix of in-house production and purchasing from third-party suppliers supports cost-competitive flexibility in feedstock strateqv

of chloroprene rubber, polyvinyl chloride pastes, and petroleum-based resins also declined, though we were able to raise prices for those products to absorb some of the increase in raw material costs.

As in olefins, the downturn in naphtha prices helped slow the deterioration in profitability in polymers in fiscal 2009. Restructuring has refocused our polymer operations on high-value-added products, such as high-performance laminates for solar cells and other demanding applications, and has improved our structure of earnings in those operations. The restructuring of our polymer operations has also included globalizing production to reinforce our cost competitiveness in commodity-grade products. Our long-term strategy in polymers provides for aggressively promoting our ethylene vinyl acetate and low-density polyethylene, where we retain a compelling competitive edge, and for reducing our market exposure in linear low-density polyethylene and high-density polyethylene, where our competitiveness has deteriorated structurally.



ethylene operations.

Low-Density Polyethylene (LDPD) Linear Low-Density Polyethylene (LLDPE) Ultralow-Density Polyethylene (ULDPE) High-Density Polyethylene (HDPE) Ethylene Vinyl Acetate Copolymer (EVA) Melthene



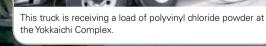
Sophisticated process control maximizes productivity in the Yokkaichi Complex's

# SERVICE GROUP

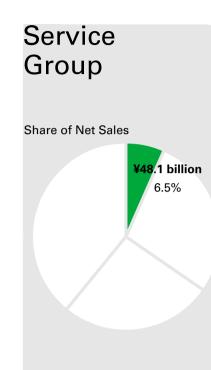
Tosoh's three product groups benefit immensely from logistics support provided by the Service Group. The Service Group also supports the product groups with construction and administrative services. And it generates revenues and earnings for the company by providing logistics and other services to customers outside the company.



Forklifts load and unload trucks in the bat of an eye at this logistics center at Tosoh's Nanvo Complex

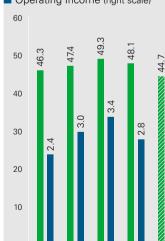






#### Performance Trends ¥ billion

Net Sales (left scale) Operating Income (right scale)



07

08

#### Logistics

Our in-house logistics operations provide transport and warehousing services for our product groups in Japan. And they have begun providing similar services in China in support of our growing presence there.

## Maintenance



Operations in the Service Group center on providing logistics and **construction** services to our three product groups and to third-party customers. The Service Group also provides **chemical** analysis, plant maintenance, administrative, information technology, and other services.

Operating income in the Service Group declined 15.9% in fiscal 2009, to ¥2.8 billion (US\$29 million), on a 2.3% decline in sales, to ¥48.1 billion (US\$490 million). Those declines reflected an overall downturn in demand. The group is optimizing its operations to remain profitable amid the further sales decline expected in fiscal 2010.

## Construction and

We turn to our construction and maintenance operations for engineering support for plant expansion and construction projects. Those operations have rendered especially valuable service in strengthening and upgrading production systems in our vinyl isocyanate chain. They also provide plant-management services.

#### **Chemical Analysis**

Our chemical analysis operations provide their namesake services worldwide. They furnish analyses of organic chemicals, inorganic chemicals, and electronic materials.

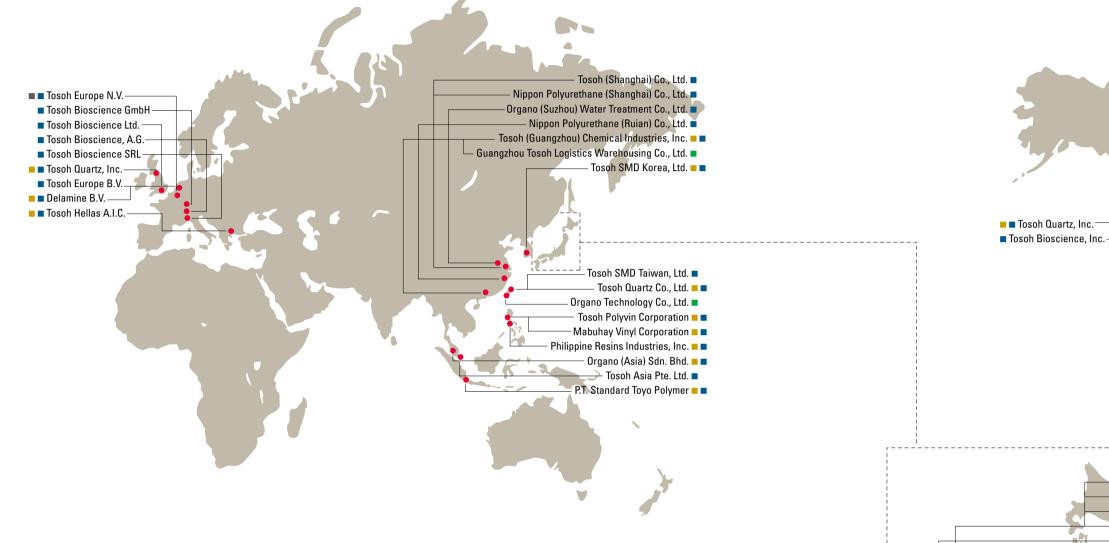
#### Administration and Information Technology

Other operations in the Service Group provide support for human resources management. That support includes conducting training programs, as well as processing employee benefits and handling other administrative work related to human resources management. Our information technology service operations, meanwhile, configure and install specialized management-information systems, including systems for assessing business performance.

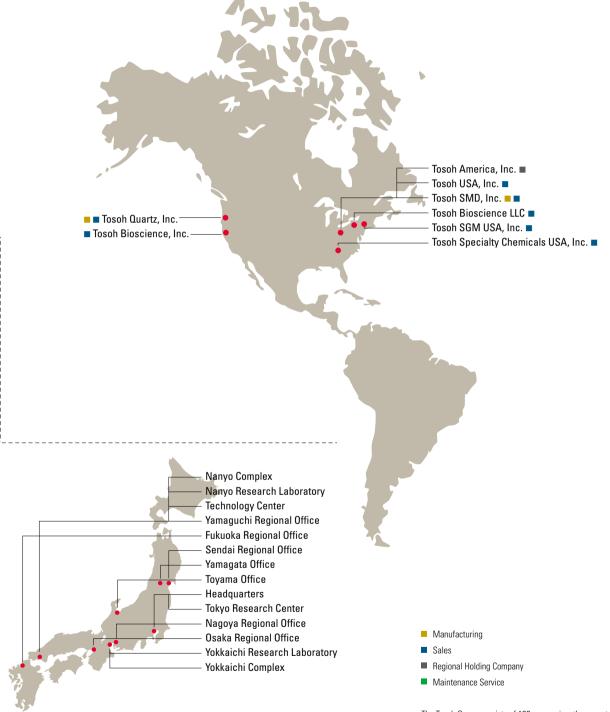


Efficient cargo handling keeps operations moving smoothly at Tosoh's Nanyo Complex.

## Tosoh Worldwide (as of March 31, 2009)



Tosoh asserts its strengths worldwide through an extensive and geographically balanced network. That network includes production platforms for optimizing the company's global supply capabilities, sales and service companies for providing customers in all principal markets with local support, and regional management companies for integrating operations efficiently. Tosoh continues to upgrade its global network in accordance with emerging market opportunities.



The Tosoh Group consists of 136 companies: the parent company, 113 subsidiaries, and 22 affiliates.

# **RESEARCH and DEVELOPMENT**

Carefully focused R&D programs yield continuing advances in product tech nologies and in process technologies at Tosoh. Those programs have been especially productive in recent years in creating sophisticated new materials and technologies for applications in bioscience and in flat-panel displays.



This researcher at the Yokkaichi Complex is developing catalytic agents



The monitor displays a microscopic textural rendering of the surface of an LCD coating under development at Tosoh

> g films at the Yokkaichi Complex for applications in LCDs Dev

## Research and **Development**

**R&D** Expenditures

05 06 07 08

09

¥ billion

A commitment to improving technologies and to developing new technologies supports continuing advances in products and in production processes at Tosoh. Our R&D expenditures in fiscal 2009 amounted to ¥14.4 billion (US\$147 million), and our R&D organization employed about 920 people.

TOSOH

We conduct R&D activities mainly at six sites: the Tokyo Research Center (Kanagawa Prefecture); the Yokkaichi Research Laboratory (Mie Prefecture); the Nanyo Research Laboratory (Yamaguchi Prefecture); the Technology Center (Yamaguchi Prefecture); our subsidiary Organo Corporation's R&D Center (Kanagawa Prefecture); and Nippon Polyurethane Industry's Central Research Laboratory (Kanagawa Prefecture). Complementing those six facilities are R&D teams for bioscience products in the Specialty Group and technical representatives at our operations in North America, Europe, China, and Southeast Asia. In addition, we conduct joint research with a growing range of partners at universities and at public-sector research institutes. R&D at the Tokyo Research Center focuses on advanced materials for electronics, health care, and other leading-edge sectors. Its technological coverage encompasses sputtering targets for producing flat-panel displays and photovoltaic cells, ceramics, silica glass, chemical vapor deposition and atomic layer deposition precursors for semiconductor devices, materials for organic light-emitting diodes, analytical and diagnostic systems for pharmaceuticals development and health care, immunoassay test reagents, and nucleic acid amplification test reagents. Researchers at the Yokkaichi Research Laboratory concentrate on

petrochemicals and specialty polymers. Product advances that they have led include new grades of polyethylene for pharmaceutical packaging and for various laminates, hot-melt adhesives for embossed carrier tape used in IC chips and food packaging, and polyphenylene sulfide resins for components in hybrid cars and other automobiles.

At the Nanyo Research Laboratory, researchers focus on advanced technologies for applications in environmental protection and on inorganic, organic, and elastomeric materials. They have contributed to advances in high-performance synthetic zeolites, zirconia powders, electrolytic manganese dioxide, energy-saving cathodes for electrolysis, chelating agents for removing heavy metals from water, environmental catalysts, polyurethane foaming catalysts, chloroprene rubber and latex, chlorosulphonated polyethylene, polyvinyl chloride paste, chromatographic resins for antibody purification, and materials for organic light-emitting diodes.

The Technology Center focuses on engineering operations. It translates new technologies from our other R&D facilities into practical production processes. It has been active in upgrading our vinyl isocyanate chain; in improving production processes for ethyleneamines; and in developing production processes for high-technology products, such as sputtering targets and silica glass.

Organo's R&D Center conducts R&D on water processing. The Nippon Polyurethane Industry Central Research Laboratory pursues advances in polyurethane materials.

R&D Emphases and Topics by Product Group

#### **Specialty Group**

R&D expenditures in fiscal 2009: ¥9.9 billion (US\$101 million)

#### Emphases

• Electronics

Silica glass, materials for organic lightemitting diodes, chemical vapor deposition and atomic layer deposition precursors for semiconductor devices, transparent conductive materials

Bioscience

Immunoassay equipment and reagents, high-performance liquid chromatography diagnostic equipment, genetic diagnostic equipment and reagents, high-performance separation media for pharmaceutical and medical analyses • Environmental protection

Zeolites for automotive catalytic converters, chelating agents for removing heavy metals from water, materials for removing pollutants from soil

#### Topics

We have supplied customers with test samples of ceramic rotary sputtering targets for transparent conductive films, and we are preparing to begin manufacturing those targets on a commercial basis. Similarly, we have supplied customers with test samples of high-efficiency electron hole transport materials for organic electroluminescent displays. Recent product launches include new separation media used in the development and production of pharmaceuticals.

#### **Basic Group**

R&D expenditures in fiscal 2009: ¥1.3 billion (US\$13 million)

#### Emphases

Process technologies for the vinyl isocyanate chain, including energysaving cathodes for electrolyzing salt and improved methods for producing

#### Topics

aniline

Tosoh's n-BiTAC bipolar ion exchange membrane electrolyzer cells are the best of their kind in electrical efficiency, at 8 kiloamperes per square meter. They support a 5% reduction in power consumption compared with conventional cells. The Basic Group also continues development and testing work on new kinds of cathodes.

#### Petrochemical Group

R&D expenditures in fiscal 2009: ¥3.2 billion (US\$33 million)

#### Emphases

Polyethylene

High-performance materials for laminates and food packaging

• High melt strength polyethylene Applications development for molding grades

• Ethylene vinyl acetate film for encapsulating photovoltaic cells

Productivity improvements in production processes, increased transparency in film

#### Topics

We have partnered with another company to develop markets for our polyphenylene sulfide products that adhere to metal surfaces. And we recently launched a grade of chloroprene rubber latex that offers better contact properties and water resistance than conventional grades.



Tosoh researchers at the Nanyo Complex use this distillation apparatus in their work on advanced materials for diverse applications.

# **RESPONSIBLE CARE**

Tosoh participates proactively in the Responsible Care initiative promoted by members of the world chemical industry. The participants in that initiative have agreed on guidelines to steer voluntary measures for protecting the environment, ensuring health and safety, and fostering dialog with the community. Those guidelines are the heart of our program at Tosoh for fulfilling our corporate social responsibility. Here is an update about our progress in implementing that program. Note that all the information presented on pages 33 to 47 pertains to the parent company only, except where indicated otherwise.

#### Environment

Our efforts to safeguard the environment span operations and products. We strive in our operations to reduce energy consumption per unit of production, to reduce output of industrial waste, and to reduce emissions of pollutants. Meanwhile, we work to develop products of minimal environmental impact and products useful in maintaining or restoring environmental quality.

#### Energy efficiency and carbon dioxide emissions

Japan and other nations that have adopted the United Nations Framework Convention on Climate Change (the

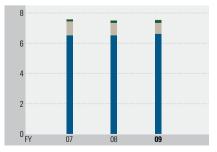
Kyoto Protocol) are tackling their firstphase targets for reducing the output of greenhouse gases. The first phase spans the period from 2008 to 2012, and Japan has committed to reducing its output of greenhouse gases 6% during that phase, compared with the 1990 level. We at Tosoh are doing our part by working to reduce our output of carbon dioxide and other greenhouse gases through energy savings and through other measures.

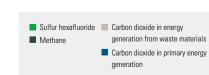
We recover carbon dioxide from industrial processes with absorption technology developed with Mitsubishi Heavy Industries and Kansai Electric Power. A specially developed liquid ab-

#### **Key Environmental Indicators: Targets and Results**

	In reference to existing production capacity in the reference years cite		
In reference to FY 1991	Achieved by FY 2009	FY 2011 target	
Energy consumption per unit of production	Reduced 12.6%	Reduce 20%	
In reference to FY 1991	Achieved by FY 2009	FY 2011 target	
Industrial waste	Reduced more than 92%	Reduce more than 91%	
In reference to FY 1996	Achieved by FY 2009	FY 2010 target	
Emissions of substances covered by Japan's Pollutant Release and Transfer Register Law	Reduced more than 82%	Reduce more than 87%, to less than 360 metric tons	

Tosoh's Atmospheric Emissions of **Greenhouse Gases** Million metric tons





sorbs carbon dioxide and other gaseous emissions, and heating the liquid releases the carbon dioxide for recycling.

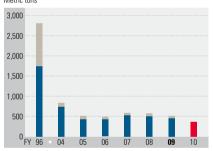
Electrolysis is fundamental to our business, and we have led improvements in energy efficiency in electrolyzer cells. Our n-BiTAC bipolar electrolyzers feature advances in internal circulation efficiency, and they consume about 9% less power than conventional electrolyzers of comparable capacity. Testifying to the energy-saving value of our n-BiTAC technology is its adoption by numerous manufacturers worldwide.

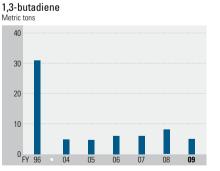
We have also raised energy efficiency in our vinyl chloride monomer operations. A great deal of heat traditionally escaped from the distillation tower used in those operations for the pyrolysis of ethylene dichloride. We have nearly halved the lost energy with a heat-recovery system. And using exhaust gas from the ethylene dichloride cracking furnace to preheat the raw material has reduced the fuel requirements in the furnace.

A gas turbine fueled with byproduct gas drives a generator to produce electricity at our Yokkaichi Complex. Exhaust from the turbine preheats intake air for the complex's naphtha cracking furnace, which reduces the furnace's fuel consumption. Those measures have reduced energy consumption about 10%. And recovering steam and routing it into the turbine's combustor has reduced emissions of nitrogen oxides.

In logistics, our output of carbon dioxide declined further in fiscal 2009, to 58,000 metric tons. That reduction resulted partly from a unit-volume decline in shipments, but it also reflected progress in raising the percentage of shipments carried on water and on rail. Ships and trains handled 88.6% of our shipments in fiscal 2009, up from 86.8% in the previous fiscal year. Shipments by truck accounted for just 11.4% of the total unit volume, down from 13.2% in the previous fiscal year, but accounted for 46.2% of our logistics-related output of carbon dioxide. So we continue working to shift shipments to water and rail and to maximize efficiency in the shipments that we need to handle on trucks. For example, we have raised energy

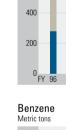
#### Total Emissions of PRTR-Designated Substances Metric tons







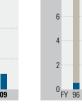
#### **Pollutants**



Metric tons

800

600





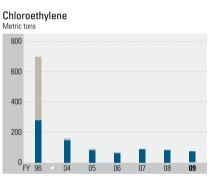


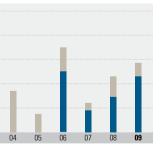
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efficiency in truck transport by adopting extralarge trailers. Those trailers carry twice the volume of conventional large trailers and reduce the output of carbon dioxide per metric ton of cargo by 30%.

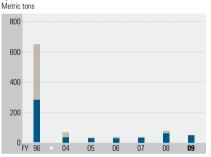
We are pursuing a sweeping reduction in our emissions of substances covered by Japan's Pollutant Release and Transfer Register (PRTR) Law. Our target is to reduce those emissions 87%, to less than 360 metric tons, by fiscal 2010, compared with fiscal 1996. We achieved

a year-on-year reduction of 0.5% in fiscal 2009, to 510 metric tons, which marked an 82% reduction from fiscal 1996. We transferred 250 metric tons of PRTR substances to off-premises processing and disposal sites, compared with 240 metric tons in fiscal 2008.

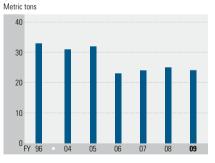




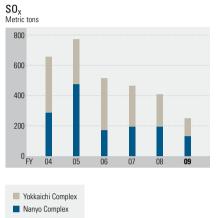
1,2-dichloroethane

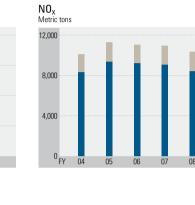


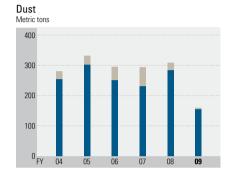
Chloroform



The graphs below detail our progress in curtailing atmospheric emissions of sulfur oxides, nitrogen oxides, and dust. Reducing output of those substances is important in preventing acid rain and respiratory health problems, and we continue working to curtail our emissions further.



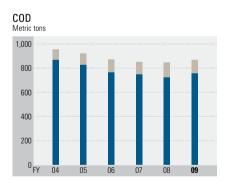




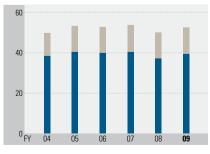
We take the initiative in keeping our emissions of waterborne pollutants well below the levels mandated by Japan's Water Pollution Control Law. Our performance in maintaining sound water-quality standards is evident in the graphs below.

Nitrogen Metric tons

400

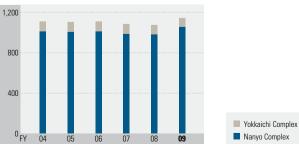


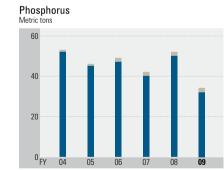
Water Consumption (excluding seawater) Million cubic meters



300

Wastewater (including seawater) Million cubic meters





Input and Output for Parent Company Operations INPUT Ο U T P U T

nergy (crude-oil equivalent) .8 million kiloliters	
aw materials .6 million metric tons	TOSOH
Vater (excluding seawater)	
2.0 million metric tons	

F

14

2

Soil emissions		Atmosp
Designated substances under Pollutant Release and	0 metric tons	CO <sub>2</sub> (calculated basis of fuel cor
Transfer Register Law		SO <sub>x</sub>
Landfill waste	1,100 metric tons	NO <sub>x</sub>
	I, IOU metric tons	Dust
		Designated s under Polluta and Transfer

#### Input and Output for 16 Wholly Owned Subsidiaries

INPUT	
	Tosoh AIA, Inc.
nergy (crude-oil equivalent)	Tosoh SGM Corporation
40,000 kiloliters	Tosoh F-Tech, Inc.
aw materials	<ul> <li>Tosoh Quartz Corporation</li> <li>Tosoh Silica Corporation</li> </ul>
50,000 metric tons	<ul> <li>Tosoh Speciality Materials</li> </ul>
later (excluding seawater)	Tosoh Zeolum, Inc.
0.0 million metric tons	Tosoh Ceramics Co., Ltd.

Soil emissions		Atmospheric emiss	sions
Designated substances under Pollutant Release and	3,500 metric tons	<b>CO</b> <sub>2</sub> (calculated on basis of fuel consumption)	<b>320,000</b> metric tons
Transfer Register Law		Hydrofluorocarbons	5,000 metric tons
Landfill waste	40,000 metric tons	SO <sub>x</sub>	660 metric tons
		NO <sub>x</sub>	180 metric tons
		Dust	33 metric tons
		Designated substances under Pollutant Release and Transfer Register Law	110 metric tons

## 5.9 million metric tons (not including internally consumed amounts)

Products

Bromine and brominated derivatives Polyurethane raw materials Industrial cleaning solvents Chelating agents Organic intermediates Advanced ceramics Electrolytic manganese dioxide Electronic materials

**Specialty Group** 

Ethyleneamines and

derivatives

Medical analytical and diagnostic products

#### **Basic Group**

Caustic soda Vinvl chloride monomer Calcium hypochlorite Polyvinyl chloride resins Chlorine Cement

#### Petrochemical Group

Ethylene Benzene Cumene Propylene Polvethylene products Functional polymers

eric emissions				
on umption)	6.6	million metric tons		
	250	metric tons		
	7,900	metric tons		
	160	metric tons		
ıbstances nt Release Register Law	250	metric tons		

Water emissions	
Chemical oxygen demand	870 metric tons
Phosphates	34 metric tons
Nitrogen	320 metric tons
Designated substances under Pollutant Release and Transfer Register Law	260 metric tons
Wastewater, including seawater	<b>1.1</b> billion metric tons

- Tosoh Hyuga Corporation
- Tosoh Finechem Corporation
- Tosoh Organic Chemical Co., Ltd.
- Tohoku Tosoh Chemical Co., Ltd. Toyo Polymer Co., Ltd.
- als Corporation 💻 Hokuetsu Kasei Co., Ltd.
  - Rinkagaku Kogyo Co., Ltd.
  - Rensol Co., Ltd.

#### Ο U T P U T

#### Products

#### 360,000 metric tons

(not including internally consumed amounts)

22 metric tons
24 metric tons
55 metric tons
6 metric tons
9.3 million metric tons

#### Participation in collaborative initiatives

The 2002 World Summit on Sustainable Development, held in Johannesburg, set goals for minimizing the environmental and health impact of chemical products and their manufacturing by 2020. That summit led to the establishment in 2006 of the Strategic Approach to International Chemicals Management as a policy framework for promoting chemical safety worldwide. Tosoh is a signatory to the Japan Chemical Industry Association's declaration of support for the Responsible Care Global Charter promulgated by the International Council of Chemical Associations in connection with that framework.

By fiscal 2008, we had prepared Japanese versions of the material safety

data sheets mandated under the internationally accepted Globally Harmonized System of Classification and Labeling of Chemicals. In fiscal 2009, we began preparing and maintaining international versions of those sheets for the European Union and for the Republic of Korea.

We conduct scientific risk assessment and reporting under the High-Production Volume Chemicals Program promoted by the Organization for Economic Cooperation and Development. Under that program, we have registered 20 substances through the International Council of Chemical Associations and the Japan Chemical Industry Association. And we have registered one substance, 1-bromopropane, with the Japan Challenge Program, a government-industry collaboration.

We completed the preregistration of chemical substances required under the European Union's Registration, Evaluation, and Authorization of Chemicals Law by the law's December 1, 2008, deadline. And we are proceeding with the registration work.

#### **Green purchasing**

Our measures for safeguarding the environment include monitoring our suppliers' adherence to environmental quality standards. In addition, we participate actively in our customers' green purchasing programs and host on-site inspections by customers.

Tosoh is in the forefront of industry efforts to conserve energy and material resources in chemicals manufacturing.

#### **Recycling and Waste**

We conserve energy and materials and minimize the environmental impact of our operations through several kinds of recycling. That has enabled us to achieve, ahead of schedule, our fiscal 2011 target for reducing unrecycled waste output. Here are some representative examples of our activity in recycling.

#### **Cement plant**

A cement plant at our Nanyo Complex consumes waste and by-products from Tosoh operations and from other companies as fuel and as raw material. The cement kiln's high temperature, about 1,500°C, breaks down toxins and other toxic substances that arise in incinerating waste. That allows for using such input as slag and sludge as raw material and for supplementing the coal fuel with scrap tires and with refuse-derived fuel.

A chlor-bypass system recovers potassium chloride and other chloride compounds from dust that arises in the cement plant to recycle as raw materials in other products, and it returns the dechlorinated dust to the cement plant. We use calcium sulfate that arises as a by-product of production processes in the cement plant's clinker. Recycling at our cement plant also includes recovering heat from the kiln and reusing it in production processes at the Nanyo Complex. Altogether, the cement plant consumes about 500,000 metric tons of waste and by-products annually.

Yokkaichi Complex

Halogens

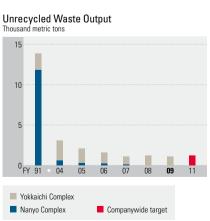
#### Salt

We recover chlorine and bromine from halogen compounds in liquid waste generated at the Nanyo Complex and at third-party manufacturers of pharmaceuticals, agrochemicals, and other products. The recovered chlorine and bromine become raw material in vinyl chloride monomer and in flame retardants, and we recover heat from the recycling process to generate steam for other processes at the Nanyo Complex.

Also at the Nanyo Complex, we recycle about 60,000 metric tons of salt annually that arises as a by-product of ethyleneamine production. Heat treatment achieves extremely high purity in the recycled salt. And the recycling contributes to reducing chemical oxygen demand at the complex.



The cement plant at Tosoh's Nanyo Complex consumes scrap tires, plastic waste (below), and other difficult-to-dispose-of waste as fuel.





#### Products for Protecting the Environment

Our commitment to environmental quality includes developing and promoting products for safeguarding the environment. Here are some examples.

#### Parent company

Tosoh is Japan's largest supplier of polyvinyl chloride, a product that conserves resources and minimizes environmental impact. Petroleum accounts for less than 40% of the raw material in polyvinyl chloride, whereas it accounts for nearly all of the raw material in other plastics. So polyvinyl chloride reduces consumption of petroleum resources. It also reduces output of carbon dioxide. The carbon dioxide generated in manufacturing 150 mm-diameter pipe of polyvinyl chloride is 20 metric tons less per kilometer than with cast-iron pipe of the same diameter. Double- and triple-glazed window sashes of polyvinyl chloride, meanwhile, provide better insulation than single-glazed sashes of aluminum. And the long-life durability of polyvinyl chloride conserves material resources. Water pipes of polyvinyl chloride are ordinarily good for more than 50 years of service.

We supply hydrocarbon cleansers that permit continuous distillation recovery and that are less harmful to the ozone layer than hydrofluorocarbon cleansers. They render services in numerous industrial sectors, including metals, precision machinery, automobiles, and electrical and electronic equipment.

Our chelating agents include products that minimize the generation of carbon sulfide and reduce corrosion in removing heavy metals from fly ash and from incinerator ash. And we supply chelating

agents for removing heavy metals from effluent by converting them to easy-todispose-of insoluble salts.

In addition, we supply agents for breaking down volatile organic compounds contained in soil. We develop those agents to accommodate different methods of soil remediation, including excavation and in situ treatment.

A technological breakthrough at Tosoh has eliminated the need for using organic solvents to affix film coatings to plastic substrates in the extrusionlamination process. The breakthrough is polyethylene film that possesses superior adhesive characteristics and thus does not require adhesive agents.

Our Ion Chromatograph IC-2001 detects faint traces of anions and cations in water. It is useful in monitoring environmental quality and in monitoring water quality in water treatment, sewage treatment, food processing, pharmaceuticals, electronics, and other sectors.

#### **Subsidiaries**

Thermal-insulating waterproofing sheet

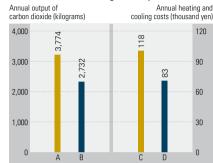
#### Lonseal Corporation

This material reflects solar heat from rooftops to conserve power in air conditioning systems. It contains an additive that maximizes all-weather durability and ensures long-life performance.

#### Superwide waterproofing sheet **Tosoh Nikkemi Corporation** With fewer seams than conventional waterproofing sheet, this material is less

prone to leakage. It therefore helps ensure the reliable containment of harmful substances, and it is easy to position.

#### Energy-Related Benefits of Polyvinyl Chloride Window Sashes in a Single-Family Home



A and C: Aluminum window sashes (single glazing) B and D: Polyvinyl chloride window sashes (low-E multiple glazing)

1. Average insulated home in Japan (1980 energy-reduction specifications) 2. Heat-pump air conditioning, used only in occupied rooms; thermostat settings of 27°C in summer and 18°C in winter 3. Electricity cost calculated at ¥23/kilowatt-hour

Source Department of Architecture, Faculty of Engineering, University of Tokyo

#### Systems for treating and recycling industrial wastewater **Organo Corporation**

Advanced systems for treating industrial effluent are the stock-in-trade of this subsidiary. Organo's products include closed systems that recycle all of the water from industrial processes.

#### Groundwater and soil remediation **Eco-Techno Corporation**

Original technology for maximizing efficiency and minimizing cost underlies this subsidiary's survey and remediation work in restoring soil and groundwater integrity.

#### Environmental analyses **Tosoh Analysis and Research Center** Co., Ltd.

This subsidiary's services include analyzing air, water, and soil quality quickly and accurately.

### **Cost-Benefit Accounting for Environmental Protection**

Below is a summary of the principal cost-benefit items in our ongoing measures for safeguarding the environment We undertake environmental costbenefit accounting in accordance with the 2005 edition of the Environmental Accounting Guidelines established by Japan's Ministry of the Environment. In regard to items not covered by those guidelines, we employ our own as-

# rate headquarters.

#### **Environmental Protection Costs**

		Capital spending			Current expenditures
		FY 2009	FY 2008	10-year total (FY 2000–FY 2009)	FY 2009
Costs within business area		14.1	9.8	57.5	15.8
Pollution prevention	Exhaust gas and wastewater treatment	7.6	6.7	30.5	8.9
Global environmental protection	Electric power and fuel-reduction measures	5.2	0.7	14.1	3.1
Resource recycling	Raw material and waste product recovery	1.3	2.5	12.9	3.8
Administration	Environmental management, impact assessment, environmental report publishing, environmental load auditing	0.0	0.1	0.4	0.8
Research and development	Environmental load-reduction technology and environmental product development	0.6	0.2	1.9	2.1
Social activities	Association fees, planting, community contributions	0.0	0.0	0.0	0.2
Other	_	0.0	0.0	0.0	0.1
Total		14.8	10.2	60.0	19.0
				• • • • • • • • • • • • • • • • • • • •	

#### **Environmental Protection Benefits**

	FY 2009	FY 2008	Chang
Amount of energy used (thousand kl crude oil equivalent)	1,800	1,900	-10
SO <sub>x</sub> emissions (metric tons)	250	410	-16
NO <sub>x</sub> emissions (metric tons)	7,800	10,000	-2,20
COD emissions (metric tons)	870	850	+2
Dust emissions (metric tons)	160	310	-15
Emissions of substances covered under Pollutant Release and Transfer Register Law (metric tons)	510	570	-6
Waste material generated (thousand metric tons)	530	520	+1
Final amount of waste material treated (thousand metric tons)	1.1	1.2	-0.

sumptions in making the calculations. The results presented here are for the Nanvo Complex, the Nanvo Research Laboratory, the Technology Center, the Yokkaichi Complex, the Yokkaichi Research Laboratory, the Tokyo Research Center, and our Tokyo corpo-

	Eco	nomic	Benefits
--	-----	-------	----------

Change			FY 2009	FY 2008
-100	Income	Contract recycling of industrial waste from outside Tosoh and sale of nonconforming products	0.5	0.6
-2 200		Energy conservation	2.2	3.0
+20 -150	Cost savings	Cost reductions in waste treatment through resource conservation and recycling	5.4	2.3
-60	Total		8.1	5.8

+10

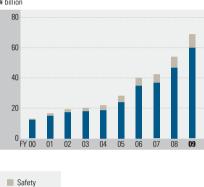
-0.1

¥ billion

¥ hillion

We invested ¥13.0 billion (US\$132 million) in environmental protection measures in fiscal 2009. That increased our aggregate investment in those measures over the past 10 years to ¥59.8 billion. Complementing our investment in environmental protection measures

Cumulative Investment in Environment and Safety



Environment

is our ongoing investment in measures for ensuring workplace safety, including seismic safety. Our investment in safety measures totaled ¥2.5 billion (US\$26 million) in fiscal 2009, which increased our aggregate, 10-year investment in those measures to ¥9.0 billion.



A host of systems for removing dust and pollutants from plant exhaust help minimize the environmental impact of Tosoh's manufacturing operations.



Tosoh's R&D programs lead the company's continuing advances in reducing environmental impact in products and in operations.

## Safety

#### **Plant safety**

We work systematically to detect and resolve latent dangers in our plants. Our approach centers on conducting hazard and operability studies in combination with failure modes and effects analyses. Hazard and operability studies identify risks from an operational standpoint, and failure modes and effects analyses pinpoint risks from the standpoint of equipment management. The findings of the studies and analyses furnish a basis for determining appropriate countermeasures.

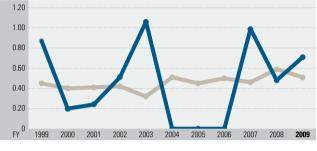
An analytical technique known as riskbased inspection provides for calculating risk as the mathematical product of the incidence and the consequence of damage. That provides a basis for optimizing plant-inspection coverage and scheduling.

The Nanyo Complex received certification under the self-inspection provisions of Japan's High-Pressure Gas Control Act in 1999, and 12 of its facilities have received new or renewed certifications. In 2009, the entire Nanyo Complex is due for recertification, and our people there are upgrading their safety procedures in preparation for the self-inspection. Fourteen of the production facilities at the Yokkaichi Complex received renewed certifications in November 2006.

We accompany risk analysis with ongoing activities for ensuring preparedness. A continuing series of drills and training help prepare our employees to respond appropriately to fires, earthquakes, spillages, and other kinds of disasters and accidents.

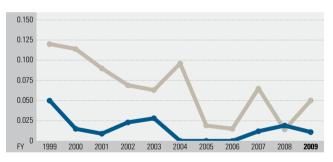
#### Number and Severity of Occupational Injuries

Comparative Occurrence Rates



Occurence rate = (number of injuries and deaths / total work hours) x 1,000,000

Tosoh employees
 Eight Japan Chemical Industrial Association industrial sectors



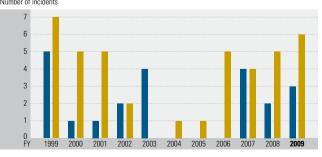
#### **Comparative Severity Rates**

Severity rate = (number of lost workdays / total work hours) x 1,000

Tosoh employees

Eight Japan Chemical Industrial Association industrial sectors

#### Number of Industrial Injury Accidents Resulting in Lost Workdays



Tosoh employees

Contractor company employees

#### **Occupational safety**

Nine nonfatal accidents serious enough to result in days of missed work occurred at Tosoh plants in fiscal 2009. Three of the injuries were to Tososh employees and six were to employees of contractor companies. Our goal is to eliminate workplace accidents completely. In that spirit, we maintain a database of close calls and of actual accidents and occupational injuries that have occurred at our plants and other companies' facilities. Analyzing the data yields valuable insights into ways to prevent the recurrence of safety problems. We refer to the analytical findings in activities for raising safety awareness among employees.

Complementing our close-call and accident database are risk evaluations

with our occupational safety and health management system. That system is a framework for evaluating risks in processes and equipment. We use it in conjunction with close-call analyses to illuminate effective safety measures. In addition, we benchmark our progress in eliminating accidents against the industry averages.

#### Employee health maintenance

Our Health Promotion Committee draws up annual action plans for each of our facilities to promote health maintenance. The plans provide for checkups and consultations in regard to a comprehensive range of health matters, and they include proactive measures, such as therapeutic walking sessions.



Maintaining a safe and amenable workplace is the top priority in plant management at Tosoh.

#### Logistics safety

Measures during fiscal 2009 to redouble safety in logistics included upgrading our emergency-response network. We have put in place local contact points throughout Japan for fielding notifications of accidents and to respond promptly in cleaning up any spillage of hazardous substances. We also continue working with logistics companies to maximize operational safety.

#### **Global Commitment**

This description of our Responsible Care activities (pages 33 to 47) centers on initiatives at the parent company. In the same spirit, we have earned the ISO 9001 and 14001 certifications at scores of subsidiaries and affiliates worldwide. The ISO 9001 regimen for quality

## Status of ISO Certification

Company	Location	Year certified
Japan ISO 9001		
Tosoh Corporation	Nanyo Complex	1993
	Yokkaichi Complex	1995
Tosoh SGM Corporation	Nanyo Complex	1998
Tosoh Hyuga Corporation	Hyuga	1994
Tosoh Logistics Corporation	Entire company	2001
Tosoh Speciality Materials Corporation	Entire company	1995
Tosoh Finechem Corporation	Nanyo Complex	1993
Tosoh Quartz Corporation	Entire company	2004
Tosoh Silica Corporation	Nanyo Complex	1999
Tosoh F-Tech, Inc.	Nanyo Complex	1998
Tosoh Organic Chemical Co., Ltd.	Entire company	1993
Tosoh AIA, Inc.	Toyama	1995
Tosoh Zeolum, Inc.	Toyama	1995
Tosoh Techno-System, Inc.	Entire company	2002
Fosoh Hi-Tec, Inc.	Entire company	2002
	Nanyo Complex	2002
Fosoh Analysis and Research	Yokkaichi Complex	2002
Center Co., Ltd.	Tokyo	2002
	Yamagata	2008
Nippon Polyurethane Industry Co., Ltd.	Nanyo Complex	1996
	Plant Operations Department	1996
Organo Corporation	Tsukuba	1996
Sigano corporation	Functional Products Division	1997
	OPS	1998
Faiyo Vinyl Corporation	Yokkaichi Complex	1995
Tohoku Tosoh Chemical Co., Ltd.	Sakata	1995
Taihei Chemical Products Corp.	Entire company	1995
Plas-Tech Corporation	Nabari, Tsukuba	1998
Tohoku Denki Tekko Co., Ltd.	Entire company	1999
Rinkagaku Kogyo Co., Ltd.	Toyama	1997

#### management and the ISO 14001 regimen for environmental management are global benchmarks for attainment in sustainability.

ny	Location	Year certified
	Nanyo Complex	1998
ı	Yokkaichi Complex	1999
oration	Nanyo Complex	2002
poration	Hyuga	2002
Vaterials	·····	2003
viateriais	Entire company	2001
Corporation	Nanyo Complex	2002
poration	Entire company	2004
oration	Nanyo Complex	2002
	Nanyo Complex	2003
emical Co.,	Nanyo Complex	1998
n Systems	Nanyo Complex	1998
	Yokkaichi Complex	2000
rvice	Nanyo Complex	1998
	Yokkaichi Complex	2000
nd Research	Nanyo Complex	2002
	Yokkaichi Complex	2000
ane Industry	Nanyo Complex	2001
on	Plant Operations Department	2004
	Tsukuba	1998
ration	Yokkaichi Complex	1999
ustry	Entire company	2003
Co., Ltd.	Toyama	2004
yyo Co., Ltd.	Entire company	1999
oration	Nanyo Complex	2000

Company	Location	Year certified
International ISO 9001		
Tosoh Europe N.V.	Belgium	1999
Tosoh Hellas A.I.C.	Greece	2004
Tosoh SMD, Inc.	USA	1998
Tosoh Quartz, Inc.	USA	1993
Tosoh Bioscience, Inc.	USA	2008
Tosoh SMD Korea, Ltd.	South Korea	2003
Tosoh Bioscience GmbH	Germany	1999
Tosoh Quartz, Inc.	UK	1997
Philippine Resins Industries, Inc.	Philippines	2001
Delamine B.V.	Netherlands	1990
International ISO 14001		
Tosoh SMD, Inc.	USA	1998
Delamine B.V.	Netherlands	2001
Japan ISO 13485*		
Tosoh Corporation	Bioscience Division	2002
Tosoh AIA, Inc.	Entire company	2002
Tosoh Techno-System, Inc.	Entire company	2002
Tosoh Hi-Tec, Inc.	Entire company	2002
*ISO 13485 applies to medica	I devices and product	s and

\*ISO 13485 applies to medical devices and products and, along with ISO 9001, is intended to ensure product quality

#### Management

Fulfilling the goals of our Responsible Care program receives top priority in management, and the company president oversees the program directly. Operating under him is the Tosoh Responsible Care Committee. Chairing that committee is the senior-most executive responsible for environmental protection, safety and health, and quality assurance, and the committee comprises the general managers of all pertinent divisions and laboratories. Supporting the committee is a secretariat based in our Environment, Safety and Quality Control Department.

The Responsible Care Committee drafts annual action plans and translates them into concrete targets and guidelines for individual units in the Tosoh organization. Its members, working with the Responsible Care secretariat, conduct plan-do-check-act cycles to design measures, to implement the measures,

#### to monitor the results, and to make adjustments as necessary to address problems that arise. More than once a year, the chairperson of the Responsible Care Committee leads audits of progress in fulfilling the overall goals of the Responsible Care program.

The following themes, designated by the nonprofit Japan Responsible Care Council, are central emphases in Responsible Care at Tosoh:

Environmental preservation Process safety and disaster prevention Occupational safety and health Chemical and product safety Logistics safety Community dialog

We also link our continuing work in quality assurance to our efforts for fulfilling the Responsible Care themes.



#### With Employees

Underlying our measures for fulfilling the Responsible Care regimen is thorough training for employees. We equip and encourage employees to recognize problems and to initiate remedial action. And we strive to motivate employees by displaying fairness and sensitivity in human resources management.

#### Time off for family

As of 2008, employees can request a reduction of up to two hours in their workday to care for young children or to attend to sick, injured, or infirm relatives. The time off for child care is available until the children complete their third year of elementary school.

#### Sexual harassment prevention

We abide by zero tolerance in regard to sexual harassment. Our training programs emphasize that policy, and we deploy managers at every facility whose responsibilities include fielding complaints about sexual harassment, providing confidential counseling, and referring especially serious complaints to our Anti-Sexual Harassment Committee. That committee comprises representatives of management, of the company union, and of the company's counseling staff. It reviews complaints and takes remedial measures as necessary.

#### Reemployment

Japan's baby-boom employees are approaching retirement age. We have instituted a reemployment system for retiring employees to ensure the transmission of their skills to the next generation. Those skills are crucial to fulfilling the aims of Responsible Care.

#### With the Community

Building close ties with the community is a core emphasis in Responsible Care at Tosoh. That includes participating in public-interest activities and making our operations open and accessible to the public.

#### **Public-interest activities**

Engineers from our Yokkaichi Complex supervise projects at a science summer school for children, and the complex dispatches engineers to teach chemistry classes at nearby junior high schools. In addition, the Yokkaichi Complex hosts trainees from the International Center for Environmental Technology Transfer. Japanese chemical companies established that center in Yokkaichi to disseminate technology for minimizing the environmental impact of chemical manufacturing. Employees at several Tosoh plants in Japan, frequently joined by family members, participate in neighborhood cleanups and watershed maintenance activities.

California-based Tosoh Bioscience, Inc., helped raise funds to fight diabetes by participating in the Tour de Cure in May 2008. The tour is a series of cycling events in 40 states in which volunteer riders earn donations to the American Diabetes Association.

Five Tosoh subsidiaries based in Ohio gathered 200 gifts for local disadvantaged families during the 2008 Christmas season. Employees took the initiative in launching the gift drive and in delivering the presents to the Homeless Families Foundation.

Tosoh responded promptly to the devastating earthquake that hit the western Chinese province of Sichuan in

#### **The PDCA Cycle**

# channels.

Council.

In Southeast Asia, the Tosoh affiliate P.T. Standard Toyo Polymer serves its host community in several ways. It hosts a pair of interns from local high schools each month and gives the interns handson training in quality control, equipment maintenance, and other practical subjects. The company donates meat and rice annually to needy families in its vicinity. And it takes part in clearing debris from local canals.

May 2008. The parent company contributed to the relief effort through the Japan Red Cross and joined three of its Chinese subsidiaries in making contributions locally through philanthropic

#### **Community interaction**

Year-round plant tours at our Nanyo and Yokkaichi complexes are fun and educational for school classes and other groups. We lend our support, meanwhile, to community activities, such as sporting events and festivals. And we participate regularly in community forums where company representatives field questions and comments about the company's operations and undertake follow-up countermeasures as warranted. That includes participating in community dialog meetings convened under the auspices of the Japan Responsible Care



Employees at Tosoh Bioscience, Inc., cycled to earn funds for diabetes research.



In Japan employees and family members at several Tosoh plants take part as volunteers in watershed maintenance work



Christmas was special in 2008 for several disadvantaged families in Ohio, thanks to employees at five locally based Tosoh subsidiaries.



These young people at the Yokkaichi Complex's salt yard are taking part in an instructional field trip hosted by Tosoh.

#### **Corporate Governance**

Shaping our efforts to optimize our business performance while fulfilling our corporate social responsibility is a sound framework of corporate governance. That framework helps maximize operational efficiency and enforce compliance with rigorous standards of corporate ethics.

#### The Board of Directors and the Executive Committee

The Board of Directors meets monthly to decide important matters in regard to business operations. Its members monitor the performance of the managers responsible for Tosoh's principal operations and issue guidance as deemed necessary. The Executive Committee, which comprises senior members of the Board of Directors, meets weekly to render prompt decisions on important business proposals.

#### The Auditors' Committee

Four corporate auditors-two from outside the company-form the Auditors' Committee. They monitor Tosoh's accounting and the performance and behavior of the members of the Board of Directors. Neither of the auditors from outside the company has any significant business dealings with Tosoh or any significant investment in the company. The Auditors' Committee Office supports the members of the Auditors' Committee in fulfilling their responsibilities. In addition, each Tosoh subsidiary has an auditing function similar to that at the parent company.

#### Other Governance Committees

Tosoh has established (ethical) Compliance, Antitrust, Export Management, Internal Control, and Responsible Care committees to monitor the company's adherence to legal regulations and internal guidelines in regard to their themes.

The Compliance Committee has produced a manual that details the responsibilities of the company and of individual employees in regard to ethical conduct. Tosoh calls attention to those responsibilities in its continuing training for all employees.

The Antitrust Committee works with Tosoh's Legal and Patent Department in overseeing adherence to antitrust regulations and pertinent internal guidelines. It has also issued a manual to furnish guidance to employees about appropriate business practices.

Japanese legislation enacted in June 2006 establishes systematic guidelines for internal controls at corporations in support of accurate and reliable financial reporting. Tosoh's Internal Control Committee works to ensure compliance with the requirements of that legislation.

The Responsible Care Committee works with the Environment, Safety and Quality Control Department and with other departments as necessary to promote the fulfillment of Tosoh's Responsible Care program. It issues the Responsible Care Report annually as an update about the company's progress in fulfilling that program.

Management's Discussion **Financial Statements Consolidated Balance Sh Consolidated Statement Consolidated Statement Consolidated Statement** Notes to Consolidated Fina Independent Auditors' Rep

# FINANCIAL SECTION

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# Management's Discussion of Financial Condition and Results of Operations

#### **Operating Results**

Tosoh posted a net loss of \$25.3 billion (US\$257 million at US\$1 = \$98.23) in fiscal 2009, ended March 31, 2009, compared with net income of \$25.2 billion in the previous fiscal year. Underlying the deterioration in net profitability was a sharp decline in operating profitability. Tosoh posted an operating loss of \$20.3billion (US\$207 million), compared with operating income of ¥59.1 billion in the previous fiscal year.

The principal reasons for the declines in operating and net profitability were declines in unit sales volume and in selling prices for Tosoh's products. Net sales declined 11.3%, to  $\pm$ 733.5 billion (US\$7.5 billion). Sales and operating income declined in all four of Tosoh's business segments, as described on pages 9 to 27, and in both of the company's geographic segments, as discussed on page 4.

Cost of sales declined 2.1%, to  $\pm 648.2$ billion (US\$6.6 billion), reflecting the decline in unit sales volume. Gross profit declined 48.4%, to  $\pm 85.3$  billion (US\$868 million), and the gross profit margin declined to 11.6%, from 20.0% in the previous fiscal year.

#### **Business segments**

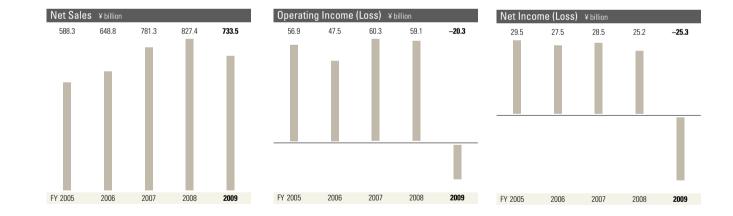
Years to March 31,	2	009	2008	2007	2006	2005
	Millions of Yen	Thousands of U.S. Dollars	Millions of Yen			
Net sales	733,506	7,467,230	827,395	781,347	648,810	588,332
Specialty	287,307	2,924,840	311,452	299,352	200,688	191,744
Basic	192,698	1,961,702	195,788	192,334	199,438	171,690
Petrochemical	205,367	2,090,675	270,881	242,291	202,345	179,273
Service	48,134	490,013	49,274	47,370	46,339	45,625
Operating income (loss)	(20,314)	(206,800)	59,108	60,279	47,460	56,898
Specialty	(911)	(9,274)	38,025	37,159	26,649	22,728
Basic	(17,470)	(177,848)	2,680	6,108	5,603	20,440
Petrochemical	(4,782)	(48,681)	15,013	14,047	12,824	10,713
Service	2,849	29,003	3,390	2,965	2,384	3,017

#### **Geographic segments**

Years to March 31,	2009		2008	2007	2006	2005
	Millions of Yen	Thousands of U.S. Dollars		Million	s of Yen	
Net sales	733,506	7,467,230	827,395	781,347	648,810	588,332
Japan	642,270	6,538,430	726,375	694,891	578,453	528,822
Other	91,236	928,800	101,020	86,456	70,357	59,510
Operating income (loss)	(20,314)	(206,800)	59,108	60,279	47,460	56,898
Japan	(22,704)	(231,131)	54,021	54,884	42,760	52,108
Other	2,390	24,331	5,087	5,395	4,700	4,790

Selling, general and administrative expenses declined 0.6%, to ¥105.6 billion (US\$1.1 billion). R&D expenditures increased 5.9%, to ¥14.4 billion (US\$147 million), and personnel expenses also increased. Offsetting those increases were declines in logistics expenses and other items associated with the decline in unit sales volume.

As noted, Tosoh posted an operating loss of \$20.3 billion (US\$207 million), compared with operating income of \$59.1 billion in the previous fiscal year. Net other expenses totaled \$4.5 billion (US\$46 million), compared with \$11.9billion in the previous year. Tosoh post-



ed a loss before income taxes and minority interests of ¥24.8 billion (US\$253 million), compared with income before income taxes and minority interests of  $¥_{47.3}$  billion in the previous fiscal year. Minority interests in the net losses of subsidiaries totaled ¥2.2 billion (US\$22 million), compared with minority interests in the net earnings of subsidiaries of ¥1.8 billion in the previous fiscal year. As noted, Tosoh posted a net loss of ¥25.3 billion (US\$257 million) in fiscal 2009, compared with net income of ¥25.2 billion in the previous fiscal year. The net loss per share, undiluted, amounted to ¥42.20 (US\$0.43), compared with net

income per share of \$42.05 in the previous fiscal year. Tosoh lowered its annual dividend per share \$2.00 (US\$0.02), to \$6.00 (US\$0.06).

# Financial Position and Liquidity

Tosoh's net assets totaled \$185.9 billion (US\$1.9 billion) at fiscal year-end, down 23.3% from the previous fiscal year-end. That decline resulted mainly from a 17.1% decline in shareholders' equity, to \$160.9 billion (US\$1.6 billion); from a charge of \$5.9 billion (US\$60 million) for total valuation and translation adjustments; and from a 29.7% decline in minority interests, to ¥30.7 billion (US\$312 million).

The decline in shareholders' equity resulted almost entirely from a 26.5% decline in retained earnings, to ¥91.2 billion (US\$928 million). The valuation and translation adjustments consisted principally of a charge of ¥7.0 billion (US\$71 million) for foreign currency translation adjustments, which resulted from the appreciation of the yen, and a decline of ¥4.5 billion (US\$46 million) in net unrealized holding gains on securities, which resulted from the decline in equity markets.

Interest-bearing debt increased 19.2%, to ¥435.6 billion (US\$4.4 billion) at fiscal year-end. That increase consisted principally of a 24.2% increase

in short-term bank loans, to ¥171.0 billion (US\$1.7 billion), and a 24.8% increase in long-term debt, less current maturities, to ¥212.2 billion (US\$2.2 billion). The ratio of interest-bearing debt to net assets was 2.34 at fiscal year-end, compared with 1.51 at the previous fiscal vear-end.

Current liabilities declined 10.5%, to ¥334.5 billion (US\$3.4 billion), as declines in trade payables, in income taxes payable, and in other current liabilities more than offset the increase in shortterm bank loans.

Current assets declined 5.4%, to ¥357.2 billion (US\$3.6 billion), principally on account of declines in trade receivables and in inventories. The decline in trade receivables reflected the decline

in sales, and the decline in inventories reflected the decline in sales and writedowns associated with declines in raw material prices toward the end of the fiscal year. Tosoh's current ratio (current assets as a multiple of current liabilities) rose to 1.07 at fiscal year-end, from 1.01 at the previous fiscal year-end.

Total investments declined 16.5%, to ¥62.0 billion (US\$631 million) at fiscal year-end, and property, plant and equipment—net declined 5.6%, to ¥322.3 billion (US\$3.3 billion). Total assets declined 6.6%, to ¥762.8 billion (US\$7.8 billion).

Cash flows from operating activities declined 56.5%, to ¥27.1 billion (US\$275 million). The loss before income taxes more than offset an increase in depreciation and amortization and a decline in income tax payments.

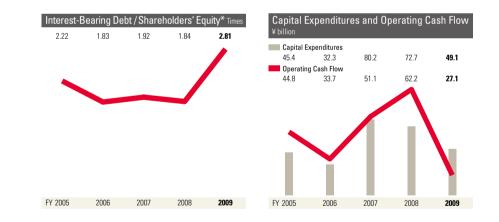
Investing activities absorbed ¥64.9 billion (US\$660 million) in cash flows, 2.4% less than in the previous year. An increase in expenditures for the acquisition of shares of subsidiaries basically offset the decline in payments for purchases of plant and equipment. Payments for purchases of property, plant and equipment totaled ¥56.1 billion (US\$571 million), down 15.2% from the previous fiscal year. Tosoh funded that capital spending by supplementing internally generated cash flow with an increase in long-term debt.

Free cash flow remained negative. The excess of cash absorbed in investing activities over cash flows from operat-



Tosoh projects a return to profitability in fiscal 2010. Its projections are for net income of ¥9 billion and operating income of ¥25 billion on an 11.4% decline in net sales, to ¥650 billion.





\* Net of valuation and translation adjustments

ing activities increased 8.8-fold, to ¥37.8 billion (US\$385 million).

Cash flows from financing activities increased 12.7-fold, to ¥67.6 billion (US\$689 million), reflecting the net increase in borrowings. Cash and cash equivalents at fiscal year-end increased 104.9% over the previous year-end, to ¥55.9 billion (US\$569 million).

exchange rate of ¥100 to the US dollar, compared with ¥100.7 in fiscal 2009. Management has also assumed an average naphtha cost—a benchmark of raw material costs in the chemical industry-of ¥35,000 per kiloliter in Japan, compared with ¥58,725 in fiscal 2009.

#### Projections for Fiscal 2010

In preparing these sales and earnings projections for fiscal 2010, Tosoh's management has assumed an average

## Tosoh Corporation Consolidated Balance Sheets

March 31, 2009 and 2008

March 31, 2009 and 2008	Malla	ns of Yen	Thousands of U.S. Dollars (Note 1)		Millior	s of Yen	Thousands of U.S. Dollar
	2009	2008	2009		2009	2008	(Note 1) 2009
ASSETS	2003	2000		LIABILITIES AND NET ASSETS	2003	2000	
Current assets:				Current liabilities:			
Cash and cash equivalents (Note 6)	¥ 55,913	¥ 27,287	\$ 569,205	Short-term bank loans (Note 6)	¥ 171,038	¥ 137,739	\$ 1,741,199
Marketable securities (Note 4)	12	8	122	Current maturities of long-term debt (Note 6)	52,332	57,743	532,750
Trade receivables (Note 6)	155,918	197,638	1,587,275	Trade payables	71,752	121,466	730,449
Inventories (Note 3)	116,864	129,683	1,189,698	Income taxes payable	2,689	9,912	27,374
Deferred tax assets (Note 10)	10,285	8,223	104,703	Deferred tax liabilities (Note 10)	-	1	-
Other current assets	18,826	15,384	191,652	Other current liabilities	36,677	46,690	373,379
Allowance for doubtful accounts	(602)	(758)	(6,129)	Total current liabilities	334,488	373,551	3,405,151
Total current assets	357,216	377,465	3,636,526				
	,		-,	Long-term liabilities:			
				Long-term debt, less current maturities (Note 6)	212,194	170,010	2,160,175
				Retirement and severance benefits (Note 7)	18,911	18,893	192,518
				Retirement benefits for directors and corporate auditors	614	629	6,251
				Deferred tax liabilities (Note 10)	3,685	5,575	37,514
				Provision for losses on dissolution of business	3,681	3,570	37,473
				Other long-term liabilities	3,342	2,404	34,022
nvestments:				Total long-term liabilities	242,427	201,081	2,467,953
Investment securities (Note 4)	20,821	30,892	211,962				
Investments in affiliates (Note 4)	18,631	22,823	189,667	Total liabilities	576,915	574,632	5,873,104
Long-term loans receivable	660	728	6,719				
Other	22,615	20,506	230,225	Contingent liabilities (Note 8)			
Allowance for doubtful accounts	(751)	(713)	(7,645)	Changhaldand a mitter			
Total investments	61,976	74,236	630,928	Shareholders' equity: Common stock: Authorized 1,800,000,000 shares;	40.624	40 624	412 662
				Issued 601,161,912 shares	40,634	40,634	413,662
				Capital surplus	30,062	30,290	306,037
				Retained earnings	91,205	124,125	928,484
				Treasury stock, 2,618,530 shares in 2009 and 2,395,205 shares in 2008	(991)	(951)	(10,089)
				Total shareholders' equity	160,910	194,098	1,638,094
Property, plant and equipment—net (Notes 5 and 6)	322,252	341,481	3,280,586		100,010	104,000	1,000,004
	-	·		Valuation and translation adjustments:			
Other assets:				Net unrealized holding gains on securities	284	4,827	2,891
Deferred tax assets (Note 10)	10,021	9,502	102,016	Deferred losses on hedges	(13)	(14)	(133)
Intangibles	11,331	14,310	115,352	Land revaluation reserve	816	816	8,307
Total other assets	21,352	23,812	217,368	Foreign currency translation adjustments	(6,984)	(1,120)	(71,098)
	,			Total valuation and translation adjustments	(5,897)	4,509	(60,033)
				Stock acquisition rights (Note 13)	217	144	2,209
				Minority interests	30,651	43,611	312,034
				Total net assets	185,881	242,362	1,892,304
Total assets	¥ 762,796	¥ 816,994	\$ 7,765,408	Total liabilities and net assets	¥ 762,796	¥ 816,994	\$ 7,765,408

The accompanying notes are an integral part of these statements.

## Tosoh Corporation Consolidated Statements of Income

#### Years ended March 31, 2009 and 2008

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
-	2009	2008	2009
Net sales (Note 11)	¥ 733,506	¥ 827,395	\$ 7,467,230
Cost of sales	648,198	662,073	6,598,778
Gross profit	85,308	165,322	868,452
Selling, general and administrative expenses	105,622	106,214	1,075,252
Operating income (loss) (Note 11)	(20,314)	59,108	(206,800)
Other income (expenses):			
Interest and dividend income	1,388	1,333	14,130
Foreign exchange losses, net	(1,702)	(3,579)	(17,327)
Insurance income	4,604	582	46,870
Reversal of allowance for retirement and severance benefits			
(Note 7)	-	1,024	_
Subsidy income	1,484	531	15,107
Interest expense	(6,826)	(6,152)	(69,490)
Equity in losses of affiliates	(976)	(469)	(9,936)
Loss on disposal of property, plant and equipment	(1,231)	(1,611)	(12,532)
Provision for losses on dissolution of business	(111)	(3,570)	(1,130)
Loss on valuation of investment securities	(2,845)	(152)	(28,962)
Other, net	1,692	209	17,225
Income (loss) before income taxes and minority interests	(24,837)	47,254	(252,845)
Income taxes:			
Current	4,027	19,589	40,996
Prior periods	255	208	2,596
Deferred (Note 10)	(1,684)	446	(17,143)
Minority interests	2,173	(1,828)	22,122
Net income (loss)	¥ (25,262)	¥ 25,183	\$ (257,172)
	v	en	U.S. Dollars (Note 1)
- Net income per share:	I		(1006 1)
Net income (loss)—primary	¥ (42.20)	¥ 42.05	\$ (0.43)
Net income – diluted	∓ (42.20) 	¥ 42.05 42.03	ə (U.43)
		42.03	
Cash dividends per share	¥ 6.00	¥ 8.00	\$ 0.06

The accompanying notes are an integral part of these statements.

## **Tosoh Corporation Consolidated Statements of Changes in Net Assets**

_			Millions of Yen		
_		SI	nareholders' equity		
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at March 31, 2007	¥ 40,634	¥ 30,285	¥ 104,409	¥ (792)	¥ 174,536
Net income			25,183		25,183
Cash dividends			(5,397)		(5,397)
Decrease due to changes in shareholding ratio			(70)		(70)
Purchase of treasury stock				(209)	(209)
Increase of treasury stock due to changes in shareholding ratio				(6)	(6)
Disposal of treasury stock		5		56	61
Other, net					
Balance at March 31, 2008	40,634	30,290	124,125	(951)	194,098
Effect of changes in accounting policies applied					
to foreign subsidiaries		(218)	(2,803)		(3,021)
Net loss			(25,262)		(25,262)
Cash dividends			(4,796)		(4,796)
Decrease due to changes in shareholding ratio			(31)		(31)
Change of scope of equity method			(7)		(7)
Purchase of treasury stock				(104)	(104)
Increase of treasury stock due to changes in shareholding ratio				(2)	(2)
Increase of treasury stock due to change of scope of equity method				(25)	(25)
Disposal of treasury stock		(10)	(21)	91	60
Other, net					
Balance at March 31, 2009	¥ 40,634	¥ 30,062	¥ 91,205	¥ (991)	¥ 160,910

		Thou	sands of U.S. Dollars (Note	1)	
	\$ 413,662	\$ 308,358	\$ 1,263,615	\$ (9,681)	\$ 1,975,954
Effect of changes in accounting policies applied to foreign subsidiaries		(2,219)	(28,535)		(30,754)
Net loss			(257,172)		(257,172)
Cash dividends			(48,824)		(48,824)
Decrease due to changes in shareholding ratio			(316)		(316)
Change of scope of equity method			(71)		(71)
Purchase of treasury stock				(1,059)	(1,059)
Increase of treasury stock due to changes in shareholding ratio				(20)	(20)
Increase of treasury stock due to change of scope of equity method				(255)	(255)
Disposal of treasury stock		(102)	(213)	926	611
Other, net					
Balance at March 31, 2009	\$ 413,662	\$ 306,037	\$ 928,484	\$ (10,089)	\$ 1,638,094

			justments	n and translation ad	Valuatior	
Minority To interests a	Stock acquisition rights	Total valuation and translation adjustments	Foreign currency translation adjustments	Land revaluation reserve	Deferred gains (losses) on hedges	Net unrealized holding gains on securities
¥ 42,720 ¥	¥ 75	¥ 10,438	¥ (1,575)	¥ 817	¥ 6	¥ 11,190
891	69	(5,929)	455	(1)	(20)	(6,363)
43,611	144	4,509	(1,120)	816	(14)	4,827
(12,960)	73	(10,406)	(5,864)		1	(4,543)
¥ 30,651 ¥	¥ 217	¥ (5,897)	¥ (6,984)	¥ 816	¥ (13)	¥ 284
		Dollars (Note 1)	Thousands of U.S			
\$ 443,969 \$ 2	\$ 1,466	\$ 45,902	\$ (11,402)	\$ 8,307	\$ (143)	\$ 49,140
(131,935)	743	(105,935)	(59,696)		10	(46,249)
\$ 312,034 \$ 1	\$ 2,209	\$ (60,033)	\$ (71,098)	\$ 8,307	\$ (133)	\$ 2,891

			of Yen	Millions			
					n and translation adj	Valuation	
Total net assets	Minority interests	Stock acquisition rights	Total valuation and translation adjustments	Foreign currency translation adjustments	Land revaluation reserve	Deferred gains (losses) on hedges	Net unrealized holding gains on securities
¥ 227,769	¥ 42,720	¥ 75	¥ 10,438	¥ (1,575)	¥ 817	¥ 6	¥ 11,190
25,183 (5,397) (70) (209)							
(6) 61							
(4,969)	891	69	(5,929)	455	(1)	(20)	(6,363)
242,362	43,611	144	4,509	(1,120)	816	(14)	4,827
(3,021) (25,262) (4,796) (31) (7) (104)							
(2) (25)							
(23)							
(23,293)	(12,960)	73	(10,406)	(5,864)		1	(4,543)
¥ 185,881	¥ 30,651	¥ 217	¥ (5,897)	¥ (6,984)	¥ 816	¥ (13)	¥ 284
			Dollars (Note 1)	Thousands of U.S.			
\$ 2,467,291	\$ 443,969	\$ 1,466	\$ 45,902	\$ (11,402)	\$ 8,307	\$ (143)	\$ 49,140
(30,754)							
(257,172) (48,824) (316) (71) (1,059)							
(20)							
(255)							
611 (237,127)	(131,935)	743	(105,935)	(59,696)		10	(46,249)
\$ 1,892,304	\$ 312,034	\$ 2,209	\$ (60,033)	\$ (71,098)	\$ 8,307	\$ (133)	\$ 2,891

The accompanying notes are an integral part of these statements.

#### **Tosoh Corporation Consolidated Statements of Cash Flows**

### **Tosoh Corporation** Notes to Consolidated Financial Statements

Years ended March 31, 2009 and 2008

	Million	Thousands of U.S. Dollars (Note 1)	
—	2009	2008	2009
Cash flows from operating activities:			
Income (loss) before income taxes and minority interests	¥ (24,837)	¥ 47,254	\$ (252,845)
Adjustments to reconcile income (loss) before income taxes and minority interests to net cash provided by operating activities:			
Depreciation and amortization	60,908	43,622	620,055
Decrease in retirement and severance benefits	(3,081)	(5,187)	(31,365)
Interest and dividend income	(1,388)	(1,333)	(14,130)
Interest expense	6,826	6,152	69,490
Equity in losses of affiliates	976	469	9,936
Loss on valuation of investment securities	2,845	152	28,962
Loss on disposal of property, plant and equipment	1,231	1,611	12,532
Decrease in trade receivables	37,942	9,008	386,257
Decrease (increase) in inventories	8,532	(15,616)	86,857
Increase (decrease) in trade payables	(45,308)	3,955	(461,244)
Other, net	960	1,458	9,773
Subtotal	45,606	91,545	464,278
Interest and dividends received	2,358	2,257	24,005
Interest paid	(6,609)	(5,988)	(67,281)
Income taxes paid	(14,299)	(25,648)	(145,567)
Net cash provided by operating activities	27,056	62,166	275,435
cash flows from investing activities:			
Payments for purchases of property, plant and equipment	(56,089)	(66,153)	(570,997)
Purchases of investment securities	(3,830)	(2,523)	(38,990)
Proceeds from sales of investment securities	4,925	1,648	50,137
Purchases of investment in subsidiaries	(9,869)	(0)	(100,468)
Payments for advances of long-term loans receivable	(4,278)	(4,368)	(43,551)
Proceeds from collections of long-term loans receivable	3,478	3,906	35,407
Other, net	805	1,009	8,195
Net cash used in investing activities	(64,858)	(66,481)	(660,267)
Cash flows from financing activities:			
Net increase in short-term bank loans	35,139	55	357,722
Proceeds from long-term debt	96,645	59,301	983,865
Repayments of long-term debt	(58,481)	(47,905)	(595,348)
Cash dividends paid	(5,532)	(6,094)	(56,317)
Other, net	(136)	(46)	(1,385)
Net cash provided by financing activities	67,635	5,311	688,537
ffect of exchange rate changes on cash and cash equivalents	(1,207)	(620)	(12,287)
Net increase in cash and cash equivalents	28,626	376	291,418
ash and cash equivalents at beginning of year	27,287	26,911	277,787
Cash and cash equivalents at end of year	¥ 55,913	¥ 27,287	\$ 569,205

The accompanying notes are an integral part of these statements.

#### NOTE 1—BASIS OF PRESENTING CONSOLIDATED FINANCIAL STATEMENTS

Tosoh Corporation (the "Company") and its consolidated domestic subsidiaries maintain their accounts and records in accordance with the provisions set forth in the Financial Instruments and Exchange Law of Japan and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards. The accounts of consolidated overseas subsidiaries are based on their accounting records maintained in conformity with generally accepted accounting principles and practices prevailing in the respective countries of domicile.

The accompanying consolidated financial statements have been restructured and translated into English from the consolidated financial statements of the Company prepared in ac-

#### NOTE 2—SUMMARY OF ACCOUNTING POLICIES

#### **Consolidation and investments**

The consolidated financial statements include the accounts Cash, readily available deposits and short-term, highly liquid of the Company and its significant subsidiaries. All significant investments with original maturities of three months or less are considered cash and cash equivalents. intercompany transactions and accounts have been eliminated in the consolidation.

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

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

#### Translation of foreign currencies

Receivables and payables denominated in foreign currencies are translated into Japanese yen at the year-end rates, and the resulting translation adjustments are credited or charged to income for the year.

Financial statements of consolidated overseas subsidiaries are translated into Japanese yen at the year-end rates, except that shareholders' equity accounts are translated at historical rates.

cordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Financial Instruments and Exchange Law of Japan. Some supplementary information included in the statutory Japanese language consolidated financial statements, but not required for fair presentation, is not presented in the accompanying consolidated financial statements.

The translations of the Japanese ven amounts into U.S. dollars are included solely for the convenience of readers outside Japan, using the prevailing exchange rate at March 31, 2009, which was ¥98.23 to U.S.\$1.00. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be converted into U.S. dollars at this or any other rate of exchange.

Cash and cash equivalents

Securities

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

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

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#### Allowance for doubtful accounts

The Company and its consolidated subsidiaries (the "Companies") provide the allowance for doubtful trade receivables by individually estimating uncollectible amounts and for normal receivables based on the Companies' historical experience of write-offs of such receivables.

#### Inventories

Inventories are principally valued at cost as determined by the weighted average method. Inventories with decreased profitability are written down.

Effective from the fiscal year ended March 31, 2009, the Company and consolidated subsidiaries adopted a new accounting standard for inventories. The standard requires companies to write down inventories with decreased profitability. The effect of this adoption was to increase operating loss, loss before income taxes and minority interests by ¥8,135 million (\$82,816 thousand), respectively.

See Note 11 for the effect of this change on segment information.

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

Property, plant and equipment are stated at cost. Cumulative amounts of impairment losses recognized have been deducted from acquisition costs. Depreciation is principally computed over the estimated useful lives of the assets on the declining basis. However the straight-line basis is applied to buildings. Repairs, maintenance and minor renewals are charged to expense as incurred.

In accordance with the taxation reform for fiscal year 2008, property, plant and equipment are depreciated using the estimated useful lives under the revised Corporate Tax Law of Japan.

The effect of this change was to decrease operating loss by ¥66 million (\$672 thousand) and loss before income taxes and minority interests by ¥70 million (\$713 thousand), respectively.

See Note 11 for the effect of this change on segment information.

#### Lease transactions

Assets acquired by lessees in finance lease transactions are recorded in the corresponding asset accounts. However, finance leases of which the ownership is considered to be transferred to the lessee and whose commencement dates started prior to March 31, 2008, are accounted for in the same manner as operating leases.

Effective from the fiscal year ended March 31, 2009, the Company and consolidated domestic subsidiaries adopted a new accounting standard for leases. The standard requires companies to capitalize all financial lease transactions.

The effect of this adoption was immaterial on the consolidated statements of income for the year ended March 31, 2009.

#### Retirement and severance benefits

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

The Companies provide an allowance for employees' retirement and severance benefits based on the estimated amounts of the projected benefit obligation, actuarially calculated using certain assumptions, and the fair value of the plan assets.

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

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

#### Income taxes

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

#### Shareholders' equity

The Corporate Law of Japan (the "Law") requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus), depending on the equity account charged upon payment of such dividends, until the aggregate amount of legal reserve and additional paid-in capital equals 25% of common stock. Under the Law, the aggregate amount of additional paid-in capital and legal reserve that exceeds 25% of common stock may be made available for dividends by resolution of the shareholders. Under the Law, the total amount of additional paid-in capital and legal reserve may be reversed without limitation of such threshold. The Law also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts under certain conditions upon resolution of the shareholders.

The maximum amount that the Company can distribute as dividends is calculated based on the non-consolidated financial statements of the Company in accordance with the Law.

#### Stock options

The Company has adopted an accounting standard for stock options. The standard requires companies to account for stock options granted to non-employees based on the fair value of the stock option. In the balance sheet, the stock option is presented as stock acquisition rights as a separate component of net assets until exercised.

Unification of accounting policies applied to foreign subsidiaries for consolidated financial statements

Effective from the fiscal year ended March 31, 2009, the Company adopted a new task force for unification of accounting policies applied to foreign subsidiaries for consolidated financial statements. This task force requires that accounting policies and procedures applied by a parent company and its subsidiaries to similar transactions and events under similar circumstances should, in principle, be unified for the preparation of the consolidated financial statements. This task force,

however, as a tentative measure, allows a parent company to prepare consolidated financial statements using foreign subsidiaries' financial statements prepared in accordance with either International Financial Reporting Standards or U.S. generally accepted accounting principles. In this case, adjustments for the following six items are required in the consolidation process so that their impact on net income is accounted for in accordance with Japanese GAAP unless the impact is not material:

- (a) Goodwill not subject to amortization
- (b) Actuarial gains and losses of defined-benefit retirement plans recognized outside profit or loss
- (c) Capitalized expenditures for research and development activities
- (d) Fair value measurement of investment properties, and revaluation of property, plant and equipment and intangible assets
- (e) Retrospective treatment of a change in accounting policies
- (f) Accounting for net income attributable to minority interests

The effect of this adoption was to increase operating loss by ¥303 million (\$3,085 thousand) and loss before income taxes and minority interests by ¥321 million (\$3,268 thousand), respectively. It also decreased capital surplus and retained earnings at April 1, 2008, by ¥218 million (\$2,219 thousand) and ¥2,803 million (\$28,535 thousand), respectively. See Note 11 for the effect of this change on segment

information.

Net income (loss) per share

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

Diluted net income (loss) per share reflects the potential dilution that could occur if stock options were fully exercised.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation.

#### NOTE 3—INVENTORIES

Inventories as of March 31, 2009 and 2008 consisted of the following:

	Millio	ns of Yen	Thousands of U.S. Dollars (Note 1)	-	Acquisition cost	Book
	2009	2008	2009	-		
				Securities with book values exceeding acquisition costs	¥ 4,947	¥
Finished products	¥ 70,490	¥ 84,160	\$ 717,602			
Raw materials and supplies	37,855	35,155	385,371	Securities with book values not		
Work-in-process	8,519	10,368	86,725	exceeding acquisition costs	9,486	
Total	¥ 116,864	¥ 129,683	\$ 1,189,698	Total	¥ 14,433	¥

#### NOTE 4—FAIR VALUE INFORMATION OF SECURITIES

The following tables summarize acquisition costs, book values and fair values of securities with available fair values as of March 31, 2009 and 2008.

(1) Held-to-maturity debt securities:

		Millions of Yen						
		2009			2008			
	Book value	Fair value	Difference	Book value	Fair value	Difference		
Total	¥ 8	¥ 8	¥ (0)	¥ 8	¥ 8	¥ (0)		

	Tho	Thousands of U.S. Dollars (Note 1)					
		2009					
	Book value	Fair value	Difference				
Total	\$ 81	\$ 81	\$ (0)				

			Million	s of Yen		
-	2009					
-	Acquisition cost	Book (fair) value	Difference	Acquisition cost	Book (fair) value	Difference
Securities with book values exceeding acquisition costs	¥ 4,947	¥ 8,402	¥ 3,455	¥ 8,709	¥ 18,047	¥ 9,338
Securities with book values not exceeding acquisition costs	9,486	6,738	(2,748)	4,078	3,405	(673)
Total	¥ 14,433	¥ 15,140	¥ 707	¥ 12,787	¥ 21,452	¥ 8,665
-	Th					
		ousands of U.S. Dollars (Note	9 1)			
-		ousands of U.S. Dollars (Note 2009	91)			
-	Acquisition cost		Difference			
- Securities with book values exceeding acquisition costs	Acquisition	2009	·			
	Acquisition cost	2009 Book (fair) value	Difference			

(2) Available-for-sale securities:

The following table summarizes book values of securities with no available fair values as of March 31, 2009 and 2008.

		Book Value	
	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2009	2008	2009
Equity securities issued by unconsolidated subsidiaries and affiliated companies	¥ 15,584	¥ 19,114	\$ 158,648
Available-for-sale securities	5,685	9,439	57,874

#### NOTE 5—PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment as of March 31, 2009 and 2008 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars (Note 1)	
	2009	2008	2009	
Land	¥ 75,215	¥ 76,512	\$ 765,703	
Buildings and structures	195,141	189,714	1,986,572	
Machinery and equipment	716,682	683,891	7,295,959	
Lease assets	101 —		1,028	
Construction in progress	24,142	39,410	245,770	
	1,011,281	989,527	10,295,032	
Less accumulated depreciation	(689,029)	(648,046)	(7,014,446)	
Net property, plant and equipment	¥ 322,252	¥ 341,481	\$ 3,280,586	

Long-term debt as of March 31, 2009 and 2008 consisted of

#### NOTE 6—SHORT-TERM BANK LOANS AND LONG-TERM DEBT

Short-term bank loans (partially secured) bore interest at weighted average annual rates of 1.41% and 1.55% as of March 31, 2009 and 2008, respectively. Such loans are generally renewable at maturity.

Thousands of U.S. Dollars Millions of Yen (Note 1) 2008 2009 2009 Loans from banks and other financial institutions, 1.74%, maturing serially through 2023: Secured ¥ 11,276 ¥ 14,137 \$ 114,792 Unsecured 253,250 2,578,133 213,616 264,526 227,753 2,692,925 Less current maturities (52,332) (57,743) (532,750) Total ¥ 212,194 ¥ 170,010 \$ 2,160,175

the following:

Assets pledged as collateral to secure primarily short-term bank loans and long-term debt as of March 31, 2009 and 2008 were as follows:

	Million	s of Yen	Thousands of U.S. Dollars (Note 1)
	2009	2008	2009
Property, plant and equipment	¥ 87,367	¥ 95,392	\$ 889,412
Other	231	266	2,352
Total	¥ 87,598	¥ 95,658	\$ 891,764

The annual maturities of long-term debt as of March 31, 2009 were as follows:

	Millions of Yen	Thousands of U.S. Dollars (Note 1)
Years ending March 31,		
2010	¥ 52,332	\$ 532,750
2011	46,688	475,293
2012	44,273	450,707
2013	38,415	391,072
2014	34,650	352,744
2015 and thereafter	48,168	490,359
Total	¥ 264,526	\$ 2,692,925

#### NOTE 7—RETIREMENT AND SEVERANCE BENEFITS

#### The liabilities for retirement and severance benefits at March 31, 2009 and 2008 were as follows:

	Million	Thousands of U.S. Dolla (Note 1)	
	2009	2008	2009
Projected benefit obligation	¥ 77,540	¥ 78,364	\$ 789,372
Fair value of pension assets	(56,276)	(62,383)	(572,900)
Unfunded benefit obligation	21,264	15,981	216,472
Unrecognized actuarial loss	(15,054)	(6,642)	(153,253)
Net benefit obligation	6,210	9,339	63,219
Prepaid pension cost	12,701	9,554	129,299
Retirement and severance benefits	¥ 18,911	¥ 18,893	\$ 192,518

Retirement benefit costs for the years ended March 31, 2009 and 2008 were as follows:

Ser	vice costs
Inte	erest costs on projected benefit obligation
Exp	pected return on pension assets
Am	ortization of actuarial loss
Rec	cognized prior service credit
Oth	ier
	Retirement and severance benefit costs

- Notes: 1. Both of the discount rate and the rate of expected return on pension assets used by the Companies are 2.5% for the years ended March 31, 2009 and 2008.
  - 2. The estimated amount of all retirement benefits to be paid at the future retirement dates is allocated equally to each service year using the estimated number of total service years.

Millions	Millions of Yen	
2009	2008	2009
¥ 3,118	¥ 3,229	\$ 31,742
1,663	1,679	16,930
(1,486)	(1,569)	(15,128)
1,300	558	13,234
(12)	(1,028)	(122)
234	269	2,382
¥ 4,817	¥ 3,138	\$ 49,038

3. In the year ended March 31, 2008, a certain consolidated subsidiary revised the post-employment benefits plan. As a result of the revision, prior service credit arose and ¥1,024 million was credited to income as reversal of allowance for retirement and severance benefits.

#### NOTE 8—CONTINGENT LIABILITIES

Contingent liabilities primarily for loans from banks to unconsolidated subsidiaries and affiliates, which are guaranteed by the Companies, and for notes receivable discounted at banks with recourse as of March 31, 2009, were as follows:

	Millions of Yen	Thousands of U.S. Dollars (Note 1)
Loans guaranteed	¥ 1,623	\$ 16,523
Notes receivable discounted	85	865
Notes receivable endorsed	95	967
Total	¥ 1,803	\$ 18,355

fluctuations.

are accounted for as hedges.

#### NOTE 9—DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING TRANSACTIONS

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

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

#### NOTE 10—INCOME TAXES

The Company and its consolidated domestic subsidiaries are subject to a number of income taxes, which, in the aggregate, indicate a statutory rate in Japan of approximately 40.4% for the years ended March 31, 2009 and 2008.

The following table summarizes the significant differences between the statutory tax rate and the Companies' effective tax rate for financial statement purposes for the year ended March 31, 2008.

	March 31, 2008
	40.4%
Increase (reduction) in taxes resulting from:	
Non-deductible expenses	0.8
Amortization of goodwill	0.8
Tax credit for research and development expenses	(2.0)
Valuation allowance	2.2
Other	0.6
Effective tax rate	42.8%

The Companies also use currency swap contracts only

for the purpose of mitigating future risks of exchange rate

All of the derivative transactions utilized by the Companies

The differences between the statutory tax rate and the Companies' effective tax rate for financial statement purposes for the year ended March 31, 2009, are not presented because loss before income taxes and minority interests was recorded.

#### Significant components of deferred tax assets and liabilities as of March 31, 2009 and 2008 were as follows:

#### Deferred tax assets: Operating loss carryforwards Unrealized gains on intercompany transactions Retirement and severance benefits Impairment loss on fixed assets

#### Other

Total gross deferred tax assets Less valuation allowance

#### Total deferred tax assets

#### Deferred tax liabilities:

Reserve for replacement of property, plant and equipment Net unrealized holding gains on securities Other

#### Total deferred tax liabilities

#### Net deferred tax assets

Note: Classification of "Net deferred tax assets" on the consolidat

Balance sheet item	
Current assets	Deferred tax assets
Non-current assets	Deferred tax assets
Non-current liabilities	Deferred tax liabilities

#### NOTE 11—SEGMENT INFORMATION

The operations of the Companies are classified into four busi-Operations of the Specialty Group include the manufacture ness segments: Petrochemical Group, Basic Group, Specialty and sale of fine chemicals, scientific and diagnostic instru-Group and Service Group. ments and systems, water treatment equipment, quartz, spe-Operations of the Petrochemical Group include the manufaccialty materials, metals and high-performance polyurethane. ture and sale of olefins and polymers. Operations of the Service Group include transportation, Operations of the Basic Group include the manufacture and warehousing and construction. sale of caustic soda, vinyl chloride monomer, polyvinyl chlo-"Operating expenses" used in the following segment information include cost of sales and selling, general and adminisride and cement.

trative expenses.

Million	s of Yen	Thousands of U.S. Dollars (Note 1)
2009	2008	2009
¥ 15,190	¥ 2,161	\$ 154,637
5,153	5,066	52,458
9,163	9,224	93,281
1,531	1,728	15,586
13,009	12,184	132,434
44,046	30,363	448,396
(15,441)	(4,201)	(157,192)
28,605	26,162	291,204
(2,550)	(2,633)	(25,959)
(327)	(3,513)	(3,329)
(9,107)	(7,867)	(92,711)
(11,984)	(14,013)	(121,999)
¥ 16,621	¥ 12,149	\$ 169,205
ed balance sheet as of March 3	31, 2009, was as follows:	
	Millions of Yen	Thousands of U.S. Dollars (Note 1)
	¥ 10,285	\$ 104,703
	10,021	102,016
	(3,685)	(37,514)
	¥ 16,621	\$ 169,205

Business segment information for the years ended March 31, 2009 and 2008 was as follows:

				Millions of Yen			
	Year ended March 31, 2009						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and corporate	Consolidated
Net sales:							
Outside customers	¥ 205,367	¥ 192,698	¥ 287,307	¥ 48,134	¥ 733,506	¥ —	¥ 733,506
Inter-segment	112,591	74,722	21,181	68,148	276,642	(276,642)	-
Operating expenses	322,740	284,890	309,399	113,433	1,030,462	(276,642)	753,820
Operating income (loss)	¥ (4,782)	¥ (17,470)	¥ (911)	¥ 2,849	¥ (20,314)	¥ –	¥ (20,314)
Identifiable assets	¥ 110,570	¥ 211,961	¥ 322,397	¥ 45,176	¥ 690,104	¥ 72,692	¥ 762,796
Depreciation and amortization	6,539	25,107	23,182	2,032	56,860	2,554	59,414
Capital expenditures	6,349	10,889	25,441	5,661	48,340	797	49,137

	Millions of Yen							
		Year ended March 31, 2008						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and corporate	Consolidated	
Net sales:								
Outside customers	¥ 270,881	¥ 195,788	¥ 311,452	¥ 49,274	¥ 827,395	¥ —	¥ 827,395	
Inter-segment	111,183	74,052	11,912	64,899	262,046	(262,046)	-	
Operating expenses	367,051	267,160	285,339	110,783	1,030,333	(262,046)	768,287	
Operating income	¥ 15,013	¥ 2,680	¥ 38,025	¥ 3,390	¥ 59,108	¥ —	¥ 59,108	
Identifiable assets	¥ 138,614	¥ 245,897	¥ 346,250	¥ 42,670	¥ 773,431	¥ 43,563	¥ 816,994	
Depreciation and amortization	4,893	18,066	15,912	1,550	40,421	1,842	42,263	
Capital expenditures	5,234	26,655	36,561	2,339	70,789	1,900	72,689	

	Year ended March 31, 2009						
	Petrochemical Group	Basic Group	Specialty Group	Service Group	Total	Elimination and corporate	Consolidated
Net sales:							
Outside customers	\$ 2,090,675	\$ 1,961,702	\$ 2,924,840	\$ 490,013	\$ 7,467,230	\$ —	\$ 7,467,230
Inter-segment	1,146,198	760,684	215,626	693,760	2,816,268	(2,816,268)	-
Operating expenses	3,285,554	2,900,234	3,149,740	1,154,770	10,490,298	(2,816,268)	7,674,030
Operating income (loss)	\$ (48,681)	\$ (177,848)	\$ (9,274)	\$ 29,003	\$ (206,800)	\$ -	\$ (206,800)
Identifiable assets	\$ 1,125,624	\$ 2,157,803	\$ 3,282,062	\$ 459,900	\$ 7,025,389	\$ 740,019	\$ 7,765,408
Depreciation and amortization	66,568	255,594	235,998	20,686	578,846	26,000	604,846
Capital expenditures	64,634	110,852	258,994	57,630	492,110	8,114	500,224

Thousands of U.S. Dollars (Note 1)

The "Elimination and corporate" column of "Identifiable assets" in the above schedules includes corporate assets of ¥100,198 million (\$1,020,035 thousand) and ¥86,343 million for the years ended March 31, 2009 and 2008, respectively, which mainly consist of cash, time deposits, investment securities and assets of administrative departments.

As given in Note 2, the Company and consolidated subsidiaries adopted a new accounting standard for inventories. The effect of this adoption was to increase the operating loss of "Petrochemical Group" by ¥1,793 million (\$18,253 thousand), of "Basic Group" by ¥929 million (\$9,458 thousand), and of "Specialty Group" by ¥5,413 million (\$55,105 thousand) for the year ended March 31, 2009, respectively.

As given in Note 2, the Company adopted a new task force for unification of accounting policies applied to foreign subsidiaries for consolidated financial statements. The effect of this

adoption was to increase the operating loss of "Basic Group" by ¥31 million (\$316 thousand) and of "Specialty Group" by ¥237 million (\$2,413 thousand) and to decrease the operating income of "Service Group" by ¥35 million (\$356 thousand) for the year ended March 31, 2009, respectively.

As given in Note 2, in accordance with the taxation reform for fiscal year 2008, property, plant and equipment are depreciated using the estimated useful lives under the revised Corporate Tax Law of Japan. The effect of this change was to increase the operating loss of "Petrochemical Group" by ¥173 million (\$1,761 thousand) and of "Basic Group" by ¥383 million (\$3,899 thousand), to decrease the operating loss of "Specialty Group" by ¥613 million (\$6,240 thousand), and to increase the operating income of "Service Group" by ¥9 million (\$92 thousand) for the year ended March 31, 2009, respectively.

Geographic information for the years ended March 31, 2009 and 2008 was as follows:

		Millions of Yen Year ended March 31, 2009				
	Japan	Other	Total	Elimination and corporate	Consolidated	
Net sales:						
Outside customers	¥ 642,270	¥ 91,236	¥ 733,506	¥ —	¥ 733,506	
Inter-segment	56,545	2,966	59,511	(59,511)	-	
Operating expenses	721,519	91,812	813,331	(59,511)	753,820	
Operating income (loss)	¥ (22,704)	¥ 2,390	¥ (20,314)	¥ –	¥ (20,314)	
Identifiable assets	¥ 638,136	¥ 64,984	¥ 703,120	¥ 59,676	¥ 762,796	

			Millions of Yen				
		Year ended March 31, 2008					
	Japan	Other	Total	Elimination and corporate	Consolidated		
Net sales:							
Outside customers	¥ 726,375	¥ 101,020	¥ 827,395	¥ —	¥ 827,395		
Inter-segment	57,705	4,279	61,984	(61,984)	-		
Operating expenses	730,059	100,212	830,271	(61,984)	768,287		
Operating income	¥ 54,021	¥ 5,087	¥ 59,108	¥ —	¥ 59,108		
Identifiable assets	¥ 692,349	¥ 74,369	¥ 766,718	¥ 50,276	¥ 816,994		

		Thousands of U.S. Dollars (Note 1) Year ended March 31, 2009					
	Japan	Other	Total	Elimination and corporate	Consolidated		
Net sales:							
Outside customers	\$ 6,538,430	\$ 928,800	\$ 7,467,230	\$ —	\$ 7,467,230		
Inter-segment	575,639	30,194	605,833	(605,833)	-		
Operating expenses	7,345,200	934,663	8,279,863	(605,833)	7,674,030		
Operating income (loss)	\$ (231,131)	\$ 24,331	\$ (206,800)	\$ –	\$ (206,800)		
Identifiable assets	\$ 6,496,346	\$ 661,549	\$ 7,157,895	\$ 607,513	\$ 7,765,408		

As given in Note 2, the Company and consolidated subsidiaries adopted a new accounting standard for inventories. The effect of this adoption was to increase the operating loss of "Japan" by ¥8,135 million (\$82,816 thousand) for the year ended March 31, 2009.

As given in Note 2, the Company adopted a new task force for unification of accounting policies applied to foreign subsidiaries for consolidated financial statements. The effect of this adoption was to decrease the operating income of "Other" by ¥303 million (\$3,085 thousand) for the year ended March 31, 2009.

As given in Note 2, in accordance with the taxation reform for fiscal year 2008, property, plant and equipment are de-

#### NOTE 12—RELATED PARTY TRANSACTIONS

The Company owns 35.9% of outstanding shares of Hodo Chemical Co., Ltd., which manufactures and sells inorgan and organic industrial chemicals, dyestuffs, agrochemical

Shares acquisition of Nippon Polyurethane Industry Co., Ltd.

#### NOTE 13—STOCK OPTION PLANS

#### At March 31, 2009, the Company had the following stock option plans:

	2008 plan	2007 plan	2006 plan
Date of grant	July 19, 2008	July 18, 2007	September 27, 2006
Grantees	29 (including 16 directors)	29 (including 15 directors)	25 (including 15 directors)
Type of stock	Common stock	Common stock	Common stock
Number of shares granted	201,125	121,379	181,463
Exercise price (yen)	¥1	¥1	¥1
Exercise price (U.S. dollars) (Note 1)	\$0.01	\$0.01	\$0.01
Exercisable period	July 20, 2008– July 19, 2033	July 19, 2007– July 18, 2032	September 28, 2006– September 27, 2031
Fair value (yen)	¥400	¥637	¥414
Fair value (U.S. dollars) (Note 1)	\$4.07	\$6.36	\$3.51

preciated using the estimated useful lives under the revised Corporate Tax Law of Japan. The effect of this change was to decrease the operating loss of "Japan" by ¥66 million (\$672 thousand) for the year ended March 31, 2009.

Export sales and sales made outside Japan by overseas subsidiaries were ¥245,267 million (\$2,496,865 thousand) and ¥278,951 million for the years ended March 31, 2009 and 2008, respectively, representing 33.4% and 33.7% of consolidated net sales. For the years ended March 31, 2009 and 2008, such sales in Asia were ¥171,627 million (\$1,747,195 thousand) and ¥198,894 million, representing 23.4% and 24.0%, respectively, of consolidated net sales.

ogaya	intermediates, and other cher	nical products. The transactions
nic	with Hodogaya Chemical Co.,	Ltd., as of March 31, 2009, were
I	as follows	
	Millions of Yen	Thousands of U.S. Dollars (Note 1)

¥ 9,785

\$ 99,613

#### NOTE 14—SUBSEQUENT EVENT

At the meeting of the Company's board of directors held on May 12, 2009, retained earnings of the Company as of March 31, 2009, were appropriated as follows:

		Thousands of U.S. Dollars
	Millions of Yen	(Note 1)
Year-end cash dividends (¥2.00 per share)	¥1,199	\$12,206

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

We have audited the accompanying consolidated balance sheets of Tosoh Corporation and consolidated subsidiaries as of March 31, 2009 and 2008, and the related consolidated statements of income, changes in net assets and cash flows for the years then ended, expressed in Japanese yen. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to independently express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Tosoh Corporation and subsidiaries as of March 31, 2009 and 2008, and the consolidated results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in Japan.

Without qualifying our opinion, we draw attention to Note 2 to the consolidated financial statements, effective from the year ended March 31, 2009, Tosoh Corporation and consolidated subsidiaries adopted a new accounting standard for inventories.

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2009, are presented solely for convenience. Our audit 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 1 to the consolidated financial statements.

Osaka, Japan June 26, 2009

KPMG AZSA & Co.

KPMG AZSA & Co.

Products	<b>Annual capacity</b> (metric tons)	Applications
OLEFINS		
Ethylene	493,000	Petrochemicals
Propylene	288,000	Polypropylene, cumene, OXO process alcohol
C4 fraction		C4 hydrocarbons, including butylenes and butane; tertiary butyl alcohol; polychlo- roprene rubber
Tertiary butyl alcohol	70,000	Methyl methacrylate
Cumene (isopropylbenzene)	300,000	Phenol
Aromatic compounds	Benzene: 154,000 Toluene: 65,000 Xylene: 32,000	Numerous products

#### POLYMERS

Ethylene vinyl acetate copolymer	Shoe soles, blown film, stretch film and laminates, extruded sheet, hot-melt adhesives, injection moldings
Low-density polyethylene	Heavy-duty bags and agricultural film, extrusion coating and laminates, injection moldings
High-density polyethylene	Chemical containers used in semiconductor manufacturing; blow moldings; blown film for containers, bags, and packages; extruded pipe; injection moldings; fishing net filament
Adhesive polymers	Adhesives for diverse materials
Chloroprene rubber	Sheathing for wire and cable jackets, industrial and automotive components, construction materials, extruded products, adhesives, wet suits
Chlorosulphonated polyethylene	Automotive and industrial hoses, coatings and linings for electrical and mechani- cal products, raincoats
High-performance chlo- rosulfonated polyethylene	Automotive belts
Polyvinyl chloride paste	Wallpaper, flooring, artificial leather, toys, gloves
Polyphenylene sulfide resins	Electric and electronic equipment, home appliances, automotive components
C9 hydrocarbon resins	Paints, printing inks, adhesive tape, hot-melt adhesives, rubber

Comont	0.000.000	Death and second and the set of the second and the stift many second second
Cement	2,900,000	Portland cement, portland fly ash cement, portland blast furnace slag cement

Products	<b>Annual capacity</b> (metric tons)	Applica	
CHLOR-ALKALI CHEMICA	LS		
Caustic soda	1,375,000	Aluminu	
Vinyl chloride monomer	1,454,000	Polyviny	
Polyvinyl chloride resins	1,102,000	Numero	
Calcium hypochlorite	10,080	Water t	
Sodium bicarbonate		Food pr	

#### ORGANIC CHEMICALS

Ethyleneamines and derivatives	53,000	Asphalt anticorr tives, pl softene paper, r
Methylene diphenyl diisocyanate		Polyure
Polyurethane catalysts		Flexible
Bromine	24,000	Pharma
Hydrobromic acid		Organic bromide
Flame retardants		Plastics
Chelating agents		System
Solvents		Cleansi
High-purity ethylene dichloride		Pharma
2,2,2-trifluoroethanol		Pharma
Organometallic reagents		Pharma
Sodium styrenesulfonate		Dye-im applica
Organic brominated compounds		Pharma
Alkyl aluminums		Polyeth

atio	ons			

um, paper, numerous other products
yl chloride
ous plastic products
treatment
rocessing, animal feeds, bath additives, pharmaceuticals

alt additives, oil and fuel additives, chelating agents, plastic lubricants, prrosion agents, polyamide resins, drainage aids, rubber-processing addi-pharmaceuticals, surfactants, epoxy-curing agents, textile additives, fabric ners, urethane chemicals, hydrocarbon purification, wet-strength resins for mineral processing

e, semirigid, and rigid polyurethane foams; elastomers
aceuticals, photosensitive materials, dyes
ic intermediates, pharmaceuticals, photosensitive materials, dyes, lithium le, terephthalic acid
s, fabrics
ns for removing heavy metals and other pollutants from water
ing agents for electronic components, metals, and other items
aceuticals, agricultural chemicals
aceuticals, agricultural chemicals
aceuticals, electronics
nproving agents for acrylic and polyester textiles, industrial and electronic ations
aceuticals, agricultural chemicals
hylene, polypropylene, synthetic rubber

Products	<b>Annual capacity</b> (metric tons)	Applications
SPECIALTY MATERIALS		
Zirconia		Ceramics for optical-fiber connectors, mechanical components, electronic components, wristwatches, grinding media
Electrolytic manganese dioxide	52,000	Dry cell batteries, soft ferrites
Manganous manganic oxide		Ferrites, thermistors
Zeolites		Molecular sieves, automotive catalytic converters, other catalytic applications

ELECTRONIC MATERIALS	
Silica glass	Production systems for semiconductors and LCDs, electronic components
Sputtering targets	Manufacturing of semiconductor devices, photovoltaic cells, and flat-panel displays
High-purity organometallics	Lasers, flat-panel displays, semiconductor devices, solar battery electrodes

#### BIOSCIENCE

Automated immunoassay systems	Medical diagnosis
High-performance liquid chromatography	Chemical and pharmaceutical analysis
Chromatographic separation media	Pharmaceutical development and manufacturing
Automated glycohemoglobin analyzers	Diabetic screening and monitoring
Molecular testing systems	Medical diagnosis, pharmaceutical development, food analysis

#### OTHER

Water treatment systems

Effluent processing, pure-water generation

As of March 31, 2009

HEAD OFFICE	NUMBER
Tosoh Corporation	11,166
3-8-2, Shiba Minato-ku, Tokyo 105-8623 Japan	COMMON
For further information, please contact International Corporate Development Tel: +81 (3) 5427 5118	Authorized: Issued:
Fax: +81 (3) 5427 5198 info@tosoh.com www.tosoh.com	NUMBER
	49,688
DATE OF INCORPORATION	
February 11, 1935	STOCK EX
	Tokvo Stock

**PAID-IN CAPITAL** 

¥40.6 billion

#### LARGEST SHAREHOLDERS

Japan Trustee Services Bank, Ltd. (Trust Account)
The MasterTrust Bank of Japan, Ltd. (Trust Account)
Japan Trustee Services Bank, Ltd. (Trust Account 4G)
Mizuho Corporate Bank, Ltd.
Mitsui Sumitomo Insurance Co., Ltd.
Nippon Life Insurance Company
The Norinchukin Bank
State Street Bank and Trust Company
Aioi Insurance Co., Ltd.
The Sumitomo Trust and Banking Co., Ltd.
The Yamaguchi Bank, Ltd.
Total

#### OF EMPLOYEES

#### N STOCK

1,800,000,000 shares 601,161,912 shares

#### **OF SHAREHOLDERS**

#### **XCHANGE LISTING**

Tokyo Stock Exchange Ticker Symbol: JP: 4042

#### **TRANSFER AGENT FOR SHARES**

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

#### **INDEPENDENT AUDITORS**

KPMG AZSA & Co.

#### **STOCK HELD BY INVESTOR TYPE**



- Japanese financial institutions 46.5%
- Other Japanese corporations 12.1%
- Japanese individuals 20.8% Foreign shareholders (mainly institutions) 20.6%

 203,555,000	33.86
 9,944,000	1.65
10,004,000	1.66
11,020,000	1.83
11,406,000	1.89
12,985,000	2.15
14,851,000	2.47
20,699,000	3.44
21,757,000	3.61
29,391,000	4.88
29,495,000	4.90
43,408,000	7.22
Shares held	Percent of total



#### **TOSOH CORPORATION**

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