



DKS Co. Ltd.

Chemistry provides a solution.

DKS Credo Contributing to the nation and society through industry

DKS Mottoes Quality First, Cost Reduction, R&D Efforts

DKS Group Logo



The DKS Group logo symbolizes "Act for a Leap," our step for globalization. It describes the bridge for growth toward "Challenge to 1000."

DKS Report 2018 Editorial Policy

In 2016, the DKS Group began to publish its annual report (DKS Report), which added information about the Company's finances and management strategy to what had been in its Environmental and Social Report. From 2017, we referred the International Integrated Reporting Framework promoted by the International Integrated Reporting Council (IIRC).

From the last fiscal year we are publishing an English-language edition. As our business activities become increasingly international in nature, we aim to communicate to all our stakeholders including those outside Japan. Starting with the disclosure of environmental, social and governance (ESG), and nonfinancial information associated with DKS's sustainable growth, we will also convey management's vision, business results, growth strategy, capital policy and other information.

In this Report, by visualizing those "invisible assets" that raise corporate value, we attempt to describe the Company's current conditions and its journey to the future, so as to be able to inform the readers of the creation of value across the short, medium and long terms. Looking to the future, we will use the DKS Report as a communication tool with all our stakeholders.

Please refer to our official website for detailed information about the financial and nonfinancial information of the DKS Group.

Organizations Covered by this Report

DKS Co. Ltd. ("DKS" or "the Company") and Group companies (collectively "the DKS Group")

Period Covered by this Report

In principle, this Report contains our activities and data during FY 2017 (from April 1, 2017, to March 31, 2018). The data on the Industrial Accident Severity Rate (ASR) and the Industrial Accident Frequency Rate (AFR) were obtained from January to December 2017.

Reference Guidelines

International Integrated Reporting Framework by the International Integrated Reporting Council (IIRC), "Environmental Reporting Guideline 2012" by the Ministry of the Environment, "Environmental Accounting Guideline 2005" by the Ministry of the Environment, "Environmental Accounting Guideline for Chemical Industries (November 2003)" by the Japan Chemical Industry Association (JCIA)



The Emission of Notification Substances under the PRTR Law in FY 2017 Transition of the Environmental Impact at Branches and Yokkaichi Chemical Safety Securement and Disaster Prevention



[Forward-Looking Statements] Statements contained in this report regarding the plans, projections and strategies of DKS that are not historical fact constitute forward-looking statements about future financial results and are subject to risks and uncertainties. As such, actual results might differ significantly from these forward-looking statements due to changes in various external environmental factors. Consequently, DKS hopes for your understanding as it does not guarantee the certainty of such forward-looking statements.

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Message from the CEO

We are on the path to becoming a "Uni-Top" company, a top niche fine chemicals manufacturer of the 21st century.

Chairman & CEO

SAKAMOTO Takashi

Getting ready to aim at achieving the targets in the five-year plan

Sharing kibi dango treats together

The third year of the current five-year management plan has been completed. At the work commencement ceremony held at the beginning of the year, I spoke in front of our employees and cited the folk tale *Momotaro*, or Peach Boy, particularly the part where Momotaro forges reliable friendships with a wise monkey, a sharp-eyed pheasant and a loyal dog who help him achieve his goal. (The order of these animals under the Chinese astrological calendar is monkey, bird and dog with 2018 the year of the dog.) This marked the beginning of an adventure for Momotaro. In the context of this story, these three friends have their own respective roles in achieving the targets in the two remaining years of the REACT1000 plan. Under the plan, the administrative sector is identified as Momotaro. I have instructed this sector to start considering the next management plan while steering the Company toward its targets in the final fiscal year of the current plan. The production sector is the monkey, the most important part of a manufacturer. Here, I have ordered the sector to ensure the quality of products. The R&D sector is the pheasant that looks on the earth from the skies. This sector will work from each of the medium- to long-term perspectives with an awareness of the 17 Sustainable Development Goals (SDGs)

promoted by the United Nations. Finally, sales are identified as the dog. This sector aims to achieve net sales of ¥67.0 billion and operating income of ¥6.0 billion. I wrapped up my speech to employees with a short statement: It is time to listen to the signals from the market. I said I would explain the meaning of these words in the next issue of the internal newsletter.

In the previous fiscal year, DKS made three noteworthy achievements. The first was posting record profits for the fourth consecutive year, thanks to the efforts of all our employees. Net sales also reached a record high. The Company's second achievement was being selected as a Certified Health and Productivity Management Organization ("White 500") by the Ministry of Economy, Trade and Industry and the Ministry of Health, Labour and Welfare. The award recognized our implementation of work-style reforms. The third achievement was our share price rising to ¥1,058 on February 2, which was one target called the Challenge to 1000. This is why I told our employees to "listen to the signals from the market." The mission of management is to increase corporate value, which can be defined in more than one way. It is also expressed as enterprise value or shareholder value. Shareholders measure corporate value through market capitalization. I hear that having a market capitalization of at least ¥30 billion is one of the requirements for a company to be listed in the securities section of the Nikkei, the major financial newspaper in Japan.



Message from the CEO

It was my longstanding dream that DKS's market capitalization soar above ¥30 billion ever since it was at the low level of around ¥20 billion. It is now around ¥40 billion. This was the basis of my wrap-up statement at the work commencement ceremony. Ten years ago, the daily trading volume of DKS shares was around 20,000 to 30,000. The term exposure refers to the market perception of how well a company is known. DKS used to have little exposure and did not attract much interest from the market. Back in 2009, when our management plan focused on "change" for the 100th anniversary of the Company, we were aware that capital investment was needed to change and renew the business portfolio. One way of getting this capital is to procure it from the stock market. We began promoting public and investor relations activities, the results of which would not be guickly recognizable. Meanwhile, daily trading volume has increased from 300,000 to as high as 1,000,000 on occasion. In the autumn of last year, our share price rose above ¥600, nearly double what it was a year prior. This was when record high profits for a fourth consecutive year came within sight.

It was around this time that it occurred in my mind that the market was sending signals. I mentioned in the internal newsletter: "the share price fluctuates up and down based on evaluations of our performance and expectations for the future. DKS has built a new plant and constantly explained its business visions to the public. The efforts of all employees were reflected in good figures, and as a result, the share price began to move in the second half of last year. However, I believe the expectations of the market slightly overstepped. It is time to listen to market signals and increase earnings by growing sales." After crossing ¥1,000, President Trump announced import restrictions on steel and aluminum and our share price declined alongside the Nikkei 225. This situation changed suddenly soon after the Company reported results on April 26. As I was returning to my office after a press conference, I was informed that trading in the shares was halted since it reached the maximum allowable single-day loss. I replied: "I see. It is exactly what I said in my new year's speech. The drop in the share price should be due to our forecast for higher sales but lower profits, contrary to the market's expectations for growth in both sales and profits. Now that the market has settled down, conditions are in place for Momotaro to respond to the market."

Upgrade and augment the management infrastructure Act in anticipation of change

Three years have passed since we declared our second renaissance at the start of the current management plan. I have stressed that our forecast for higher sales and lower profits this fiscal year is the minimum target, which triggered the fall in the share price. We are making steady progress on our vision for creating the future, and we are building out our management infrastructure, including for new businesses. DKS has started construction of its fifth line at the new plant in Kasumi, Yokkaichi. Our subsidiary in Taiwan is constructing a new plant with plans to complete the first phase in 2019. The existing businesses or what we call "ACTUAL" businesses have improved strongly. Unprofitable businesses have become healthier. The "NEXT," or peripheral businesses, which are product lines from the new plant in Kasumi, now generate about one-fourth of operating income. When drawing up plans to invest in new plants, we used ROIC (return on invested capital) as a benchmark. Our target for ROIC was at least double the weighted average cost of the amount of loans and capital (WACC). ROIC has exceeded this target, allowing DKS to post record-high profits in the fiscal year ended March 2018.

For stronger organization and higher efficiency, DKS transitioned to a new structure in April. In business management, there is some point where we make a decision to turn R&D outcomes into commercial products to be sold in the marketplace. In other words, this reflects the progress of a material from the research sector toward the sales sector. Through commercialization and the creation of new businesses, sales of these products are booked and we can increase awareness in business divisions. However, there were some cases where this progress was too early, which resulted in the booking of impairment losses. The battery materials business operated by Elexcel Corporation and the RHEOCRYSTA cellulose nanofiber business are examples. In fiscal 2018, we decided to move these two businesses back to the R&D sector under head office expenses to focus on R&D and accelerate the realization of outcomes without setting sales budgets. As of April, the Quality Assurance Office was moved under the direct control of the President to clarify our stance on strengthening governance. The COO Office plants the seeds of future businesses and 19 peripheral and new businesses have begun to grow.

Regarding updates to the personnel system, we have entered our third year under a new assessment system for managers. While monitoring the uptake of the new system, we I finished both marathons within my goal times, and I learned the importance of being able to adapt to change.

announced six factors to consider in succession plans for grooming the next generation of leaders. These factors are 1) work track record, 2) tenacity to achieve results, 3) fair insight, 4) entrepreneurship, 5) leadership of organizations and 6) ability to engage with shareholders. Our core management training session last summer focused on these factors. We asked an international consulting company to organize this session, and they held a lecture regarding changes in the chemicals industry brought about by digitization. Examples were also given where consortiums are working to solve common issues faced by the industry. I hope this increased management's awareness of innovation. For management that respects the interests of shareholders, the general meeting of shareholders held last year passed a resolution that allows stock with restrictions on transfer to be allocated as a portion of remuneration to our board members. We are also hiring mid-career professionals with expertise while launching businesses in the life sciences field.

Act for a leap is the subtitle of our current management plan REACT1000. Although difficult, we need to stay ahead of change to take action. We also need to endure and progress while facing changes that arise. The world's oldest marathon started in Boston 122 years ago. This year, Yuki Kawauchi won the race, the first Japanese runner to do so in 31 years. On April 16, I ran this race myself and experienced certain feelings. Before this race, I finished the Tokyo Marathon on February 25. The weather was clear with no winds, and the temperature was between 3° and 9° Celsius. I was in great condition. Yuta Shitara won the race while setting a record in Japan. In Boston, there was a headwind and heavy rain with temperatures below freezing, between minus 1° and 3° Celsius. In Tokyo, the conditions were favorable, while in Boston, running conditions could not have been worse. Over the same distance of 42.195 kilometers, the best and the worst conditions tested the runners. Yuki Kawauchi turned the worst conditions into an opportunity. I finished both marathons within my goal times, and I learned the importance of being able to adapt to change.

Crossing the goal line at the Boston Marathon on April 16, 2018

Fine chemicals manufacturer of the 21st century

Seed accelerator for sustainable growth

Next, I will talk about change and transformation. Every day, the term *globalization* appears in the news. Is this the best expression? Globe means the earth. Where the meaning has not changed over time, why is globalization used to express movement around the world? Globalization originates back to the Age of Exploration in the 15th century. I believe there are no words to describe the phenomenon where space and time are shrinking all over the globe which is happening today. The economic fabric that was developed through the previous century since the Industrial Revolution is changing in the current century. If the 20th century was defined by electricity and computers, the 21st century is being defined by the changes brought about by IoT, Big Data and Al via the Internet. The Internet is making the world a smaller place in time and space. The consulting company I mentioned earlier repeatedly said that digitization was disrupting the industry. I believe the B to B and B to C trends have begun to be turned around by the Internet to a C to B trend.

One disruption is the abnormal change in the relationship between things and money. The survival of chemicals manufacturers is being tested by these changes in the 21st century. I believe that chemicals will be around as long as there are people. Machine-based memory and computing should not lead to the creation of new chemical substances. It is in a similar sense that keys to discovering drugs are to be found in living organisms and biology rather than machines. Established in 1909 and surviving through the 20th century, DKS found certain hints that enabled it to continue thriving in the 21st century. Big companies in Europe and the United States have been pursuing scale and market share to survive. Then why does DKS still exist, which has never exhibited a large scale? I believe a clue to our survival lies in our history and the fact that we were not

Message from the CEO

eaten by larger players. "Uni-Top" expresses our ambition to be a company that is well recognized for its originality. I always appreciate the description of DKS written in Japan Company Handbook published by Toyo Keizai Inc.: "Top in industrial chemicals. Established reputation in technological capabilities."

Our role model as a new business accelerator for sustaining growth is 3M in the United States. From 3M, I learned the concept of customer-inspired innovation. There, a company can be a mutually-inspiring partner to its customers and promote business hand-in-hand. Such inspiring/inspired partners include business entities in different industrial sectors, for example, the machinery industry. At our Kasumi Plant, we produce products tailored to the needs of such inspiring/inspired partners. In the past, we never built facilities dedicated to a single customer; however, the Kasumi Plant did it for the first time. While staying true to ACTUAL existing business fields, DKS is commercializing NEXT businesses, which are improved on and peripheral to ACTUAL businesses. Moreover, we have given the name DREAM to completely new businesses including M&A that break from the past. One DREAM business is the life sciences business, which is positioned as a seed to be accelerated at DKS.

In December 2017, we held a Company briefing for individual investors with 45 minutes of explanation and 15 minutes for Q&A. One question was on why neither "drugs" nor "medicine" were mentioned in my presentation about DKS while the Company name contains "*seiyaku*" ("making pharmaceuticals" in Japanese).

In answering this question, I said that in compiling a 100-year anthology of the Company, I read the historical record of DKS's first 30 years from its foundation. While there is no reference to where the word *seiyaku* became a part of the Company's name, the Company's history is written from the beginning of DKS (with the former name Dai-ichi Kogyo Seiyaku). In the chemicals industry, materials are called drugs (*yaku* in Japanese) or agents. I explained that this could be why *seiyaku* became a part of our name.

The investor who asked the question did not seem satisfied with my answer. I went on, "we can be a company which newly focuses on supplements and functional foods so that we are more suited to the name our predecessors gave to the Company." He then nodded his head. Last summer, DKS acquired 100% of the shares in an academic-based venture company researching substances for treating dementia and a small company with technologies for extracting target substances. DKS will further focus on the life sciences field aiming to foster it into a core business.

As inspiring/inspired partners, we work together with customers and create new businesses to sustain growth.



Data

A bright future comes from the smiles of *Momotaro* and his friends

Initiatives in ESG and SDGs to raise corporate value

The United Nations adopted the SDGs in September 2015. I believe the essence of these SDGs is the basis of corporate activity. Elements of the 17 SDGs can be found in the DKS Credo of "contributing to the nation and society through industry" and the DKS Mottoes, as well as the Company song's lyrics. Here, I introduce part of the Company song, which has four verses as a whole and is sung by all employees three times a year, namely at commencement ceremonies at the start of a new year, in April and in October. It starts with "South of Shichijo-senbon, Kyoto" and ends with "Promote industries of Japan, treasures of Japan and enhance brightness of culture." "Pursue highest quality for the world" and "Eliminate unnecessary costs." Although the expressions sound antique, the spirit behind these words is fresh and unchanging. This spirit is also relevant to the concept of ESG, which is often mentioned in the market. The 169 targets of the SDGs are goals for 2030, and I have instructed employees to integrate them in our next management plan that will begin in 2020, when our current five-year plan will end. We are elaborately preparing for it.

We have chosen five of the 17 SDGs and will clarify their relevance to our business in terms of priorities based on their importance to enhance corporate value and explain to our stakeholders, such as employees, shareholders, customers, suppliers, partners and society. Social activist Naomi Klein has said that the world will be crazy unless environmental issues are addressed. Over the next two years, we will outline the initiatives that we can take as a company. In Japan, legislation for work-style reforms was passed. I have been appointed the leader of a group in Kyoto that promotes labor administration as a private entity. While aiming to increase productivity and efficiency, the Group is focusing on health and safety promotion and disaster prevention with related organizations. In the autumn of 2019, the 78th Japan Industrial Safety & Health Association conference will be held in Kyoto for the first time. Internally, we have stepped up efforts to promote women in the workplace. Women now play key roles in their departments. These efforts have been recognized externally; DKS was selected as a White 500 company and awarded the WICI Japan Award for Excellence in Integrated Reporting and the Industrial Technology Award.

It was also a female researcher of DKS who led the development in the life sciences field, which is our seed accelerator for creating a better future. This life science project focuses on a third bio-derived raw material after pulp and sugar which go to make our products. The Empress Shoken revived the ceremonial leaf feeding to silkworms during the Meiji era to respect the raw material for silk textiles, which was a national industry at the time. We are eager to contribute to regional revitalization through business related to silkworm breeding as a part of the DKS Credo.

Returning to the folk tale of *Momotaro*, the demons *Momotaro* and his friends battle could be construed as markets. There are three other characters who play essential roles on this stage. The first one is the traveling merchant who brings information about the demons. Inspiring/inspired partners are important sources of information. The second is the old man who understands *Momotaro*'s decision and gives him encouragement. I believe this is our founders who left us with the DKS Credo, the DKS Mottoes and the company song. The third character is the old woman who makes *kibi dango* treats, which give *Momotaro* and his friends their strength. This *kibi dango* must be the technological capabilities passed down by our senior colleagues.

Let me explain my understanding of the Company's technological capabilities. I believe DKS has two strengths. One is our R&D capabilities as a chemicals manufacturer for creating new applications. It is our ability to provide new ways to use what we already have. The other strength is our manufacturing capabilities that find functions by producing adequate quantity. This is the production technology that enables us to enhance added value in niches, and not to reduce cost through mass production. The new Kasumi Plant, which is pursuing smarter and modular solutions, is a symbol of such strengths. ACTUAL existing businesses, NEXT peripheral businesses and DREAM new businesses. We intend to grow NEXT businesses more, which already generate one-fourth of operating income. The two life sciences businesses, which were DREAM businesses that turned actual, are expected to contribute to operating income in the fiscal year ending March 2020. ACTUAL, NEXT and DREAM businesses will beautifully blossom through the aid of kibi dango, or technological capabilities. Together with all our employees, and with smiles on our faces, we are making steady progress on the path to being a "Uni-Top" company as a fine chemicals manufacturer of the 21st century.

Advantages and Strengths of DKS Businesses

Chemistry provides a solution

To preserve the global environment

For safe and secure living

Functional Chemicals

We provide solutions for the individual needs of various industries by proposing and creating additional value based on our chemical technology-derived substances/material technologies (detergents, emulsifiers, dispersants, thickeners, foaming agents).

Surfactants

We have provided highly functional surfactants since our foundation in 1909.



Amenity Materials

We provide materials and application technologies to add comfort in daily living environments.

stry/Sector
Food
İ Ô

Polyurethane Materials

We provide industrial materials and polyurethane materials (paints, adhesives, civil engineering and construction materials and electric insulation materials).

Customers' Industry/Sector





Functional Materials

We provide flame retardants, radcure resins, waterborne polyurethanes, etc., for applications essential to home appliances and daily life.

> Customers' Industry/Sector Environment & Machines & recycling & metals

Electronic Device Materials

We provide ceramic materials, conductive pastes, etc., for applications in home appliances and electronic components.



For happy and convenient societies

Plastic Materials

We provide plastic additives and resin materials indispensable for various plastics that have remarkable characteristics not found in natural materials (radcure monomers/oligomers, flame retardants, antistatic agents, lubricants, anti-clouding agents, antioxidants).

8

DKS Group Products Around Us

DKS Group products support a variety of products used in our daily life.



The History of Chemistry Provides

Industry Events

1900s

With the advent of World War I, the spinning industry undergoes dramatic growth. Textile goods exceed 50% of Japanese exports.

DKS Product Development

1909	SILKREELER cocoon unwinding agent (chemical agent for spinning)
1915	Gembu Marseille Soap (industrial soap for spinning)

Cocoon unwinding agents were developed at the start of the 1900s to address the need for a method to spin waste cocoons while leaving as much of the sericin in place as possible, which had been a challenge for the spinning industry.

Following the start of World War I, the Company introduced Gembu Marseille Soap, the first industrial soap for spinning made in Japan, and supported the development of the textile industry.



View of the first shipment from the General Partnership Company Ohno Kogyo Seiyakusho

1930s**-1950**s

Following World War I, the industry undergoes a period of modernization, during which time the textile industry sees an accelerating shift from natural fibers to synthetic alternatives.

1937	MONOGEN higher alcohol-based detergent
1950	CELLOGEN synthetic thickener

Along with the development of the textile

Along with the development of the textile industry, the Company developed many types of soaps and textile oil agents, thereby establishing its position as a textile oil agent manufacturer.

During this period, the Company developed the nonionic surfactant NOIGEN, the cationic surfactant CATIOGEN and various progenitors for other surfactants, setting the stage for its rise to the top of the industry.



Establishes Yokkaichi Chemical to manufacture and sell nonionic surfactants



Builds the Ohgata Plant, the first facility in Japan to commence manufacturing of solvent-method CMC (CELLOGEN)

1960s**-1970**s

Upon entering Japan's period of rapid economic growth, the petrochemical industry begins to transition to domestic production and stronger international competitiveness.

1969 PYROGUARD flame retardant for plastics

1970 DK ESTER food emulsifier

Against the backdrop of intensifying price competition in industrial fields, the Company expanded the scope of and diversified its industrial products. In anticipation of the future potential of the polyurethane market—positioned as a downstream sector within the petrochemical industry—the Company commenced its polyether business. Moreover, the Company launched one business after another that would serve as a foundation for the future, including flame retardants and sucrose fatty acid esters.





1970 Constructs sucrose fatty acid ester plant

e fatty DK ESTER



a Solution

1980s

In response to the two oil crises, the end of the fixed exchange rate system, the revaluation of the yen and other external factors during the 1970s, the industry transitions to high-value-added products.

1982 SUPERFLEX waterborne polyurethanes

In the transition to high-value-added products, the Company enhanced its research and development in the priority areas of "Resources and Energy," "Electronics and IT," "Food, Pharmaceuticals and Cosmetics" and "new materials." The Company developed various highly functional surfactant and polyurethane products.

Kyoto Elex Co., Ltd. established to





NEW FRONTIER

1986

1990s

Following the collapse of Japan's bubble economy, greater interest is placed on rising energy costs and safety that takes the environment into consideration, which accelerates the greater functionalization of existing materials using polymerization technologies.

DK BE-CLEAR industrial washing agent 1990 EIMFLEX polyurethane

1993 HITENOL polymerizable surfactant

In aiming to become a leader in highly functional chemicals, the Company began collaborating with other industries as a way of addressing new needs. Moreover, the Company developed a nonionic surfactant with a low environmental impact in collaboration with an overseas manufacturer, as well as promoted product development and marketing that addressed the Japanese market.



DK BE-CLEAR



7702

2006

R&D labs relocated to

HITENOL



Japan's chemical industry begins to see the development of high functional sectors that aggressively create and deliver added value to society.

2005 ELEXCEL IL ionic liquid

2015 RHEOCRYSTA cellulose nanofibers

In establishing electronic materials and IT as the next generation of business pillars that will serve as the foundation for future growth, the Company began to take steps to transition from a traditional surfactant company to a leading industrial chemical supplier. In 2015, the Company completed construction of the Kasumi Plant at its Yokkaichi Branch, which is intended to serve as the core location for corporate value creation.



2015 Construction of the

Kasumi Plant in

Kasumi Plant (Yokkaichi City)



Value Creation Process of the DKS Group

Based on its technologies and trust accumulated over the past 100 years, the DKS Group applies originality and imagination to limited resources to deliver materials that enrich our way of life.



Customers

Shareholder returns

Coexistence and mutual prosperity through the joint development of high-value-added products

DKS Stakeholders

and

Value Creation

Employees

Skills acquisition

Work-life balance Work motivation

Shareholders

Efficient and transparent

Diversity

Growth

management

Society

Regional economic revitalization driven by contributions to the development of local communities

Data

Five Operating Segments



Review of the Medium-Term Management Plans

	ADD21 (Ambitious Dynamics DKS for the 21st Century) — Tolerance to Changes		CHANGE100 Stage II —Expansion along with Earnings			
	April 2004–March 2009	April 2009–March 2012	April 2012–March 2015			
Targeted Figures	Consolidated net sales ¥50 billion Ratio of ordinary income to sales 7%	Consolidated net sales ¥55 billion or higher Operating margin 4% or higher	Consolidated net sales ¥60 billion or higher Operating margin 5% or higher			
Slogan	"With High Aspirations, We Will Shine Brightly in the 21st Century"	"Each of Us Holds the Key to Success"	"Each of Us Holds the Key to Success"			
Vision	Business Expansion and Sustainable Corporate Value Growth	Building a Business Structure Necessary as a Leading Industrial Chemical Company	Staying Ahead of the Times as a Leading Industrial Chemical Company			
Management Policies	 Putting the concept "R&D is the engine of the Company" into practice to realize customer satisfaction Continuously complementing and expanding the values of the Company Reinforcing the business by emphasizing the "three actuals" (actual work site, actual goods and actual situation) Enhancing corporate governance Promoting compliance management Establishing an ideal company structure by the 100th anniversary (April 2009) 	 Securing a stable profit structure Pursuing greater business efficiency Developing and strengthening our foundation to realize the "technology makes the Company" concept Accelerating the creation of new products Enhancing compliance management Improving managerial skills and human resource development 	 Expanding peripheral business fields Enhancing and reinvigorating domestic production facilities Accelerating the creation of new businesses Pursuing cost reductions Improving management capabilities and developing human resources Enhancing overseas expansion and strengthening administration 			
Plan Outline	 Increasing sales and building a stable earnings-generating business portfolio Developing and expanding new high-value-added businesses Generating strong awareness of and benefits from realizing targets after establishing the management infrastructure 	Basic Strategies 1. Enhancing the enterprise's power (marketing clout, cost-saving ability, technical strength and organizational power) = Heightening our corporate value 2. Promoting selection and concentration = Determining the withdrawal from underperforming segments based on our exit rule 3. Optimizing the allocation of management resources = Funneling people, goods and capita 4. Seeking more productivity = Seeking more profitability through the integrated business division approach 5. Creating new businesses and strengthening cooperation with the parties concerned = Developing inorganic materials, dispersion technology, electronics materials, etc. 6. Focusing on priority business segments = Promptly reaping the benefits of an existing ongoing, highly profitable business				
Review	In the final year of the plan (FY 2009), business conditions became severe, characterized mainly by declining demand and falling sales prices amid surging raw material naphtha prices caused by high crude oil prices and the subsequent global recession triggered by the financial crisis in the United States. Against this backdrop, DKS undertook such initiatives as boosting sales of core products, developing new markets in growing fields that include IT and the environment, focusing on developing new materials, continually revising prices, and cutting operating expenses and other costs. Despite these efforts, the Company's earnings fell below the plan's targets.	The initial year saw the impact of the financial crisis triggered by the Lehman Brothers bankruptcy. With revenues growing over the next two years, however, DKS successfully achieved a target of the plan by recording final fiscal year (fiscal year ended March 2012) consolidated net sales of ¥56.2 billion. In contrast, the Company was unable to reach the plan's operating income target due to operating income decreasing in the final fiscal year amid sharp demand drops and ongoing high raw resources prices.	Although DKS aimed to increase net sales from ¥56.2 billion the previous fiscal year to ¥60 billion, the fiscal year ended March 2015, the final year of the plan, ended with consolidated net sales at ¥55.5 billion, below the target because of delays in investment to raise production in core businesses and stagnation in the solar cell field. On the other hand, DKS achieved its operating margin target given record-high operating income, ordinary income and net income. While missing its quantitative targets, DKS saw success in qualitative terms.			
Successes	 Introduced an integrated business division approach that vertically links the research, production and marketing divisions, and promoted a change in consciousness toward the concept of emphasizing earnings based on strict budget management and clarifying responsibilities 	 Increased business divisions' profits by instilling a profitability mind-set Launched and promoted the Human Resources Development Project aimed at instilling an awareness of management in all departments 	 Upgraded the management infrastructure (e.g., commenced introducing a new ERP system) for the future Maintained a healthy balance sheet (increased the capital adequacy ratio) Made new investments for growth (made Yokkaichi Chemical a wholly owned subsidiary) to expand business fields, purchased land, began preparation for a new plant 			
lssues	Further instillation of a profitability mind-set	Improve the corporate culture to bring a profitability mind-set to the forefront Realize a balance in three areas: 1. Maintain a strong balance sheet: Simultaneously increase assets and liabilities/capital 2. Revamp the business portfolio: Select and concentrate on future-oriented businesses 3. Optimize human resources: Develop highly capable employees that cross generational lines	Maintain a robust and healthy balance sheet to increase earnings			

Five-Year Management Plan "REACT1000" April 2015 to March 2020

Practicing the concept "chemistry provides a solution," we will take up the challenge of carrying out our management plan REACT1000.

	1 Create new corporate value	- We will maximize our performance and market capitalization derived from assets held.
	2 Create a clear corporate image ————	- We will increase awareness toward the Company's image and profile.
Management	3 Ensure more profound corporate governance —	- We will increase management efficiency by focusing on corporate governance.
Policy		- We will pat careful attention to ROE from a medium- to long-term perspective.
Today		 We will promote the development of materials and technologies in collaboration with business partners, academia, associations, and related parties.
	6 Accelerate and enhance mother plant functions —	 We will improve Group-wide productivity based mainly on a Yokkaichi composite base structure.

Year to March 2020 Targets

¥67.0 billion ¥6.0 billion

ROE

9.0% 10% 20%

Operating Income

Overseas Sales Ratio

Net Sales

Operating Margin

Scope of REACT1000 and AND100×6

	Employees	Shareholders	Customers	Society	
R (RETURN)	Give proper credit for their contributions	P/E and P/B for 1000	Active partner	Positive economic cycle	
E (EXPORT)	Increase the overseas ratio	Annual report Market development		Mother plant	
A (ADVANCE)	ACTUAL100×6	Withdraw from unprofitable businesses	DREAM100×6	Brands	
C (CREATE)	NEXT100×6	Change from undervalued stock to growth stock	Diplomacy with special assignments	Regional revitalization	
T (TRAIN)	Training & education	Outside executive meetings	Increase IT sales	Public classes	





About the DKS Group

Financial/Capital Strategies and Total Shareholder Return

Financial Position

As of the end of the fiscal year ended March 31, 2018, the Company had total assets of ¥73.9 billion, net assets of ¥31.9 billion, an equity ratio of 40.8%, cash and cash equivalents of ¥11.4 billion and interest-bearing debt of ¥23.8 billion; the net D/E ratio was 0.41.

Regarding cash flows for the period, cash flows provided by operating activities achieved their highest levels in the Company's history, reaching ¥5.0 billion, significantly greater than the ¥3.7 billion recorded during the previous fiscal year. As a result of completing the first stage of investments in the Kasumi Plant and implementing sales of real estate by the Company's subsidiary in Taiwan, negative cash flows from investment activities were kept down to ¥1.1 billion, leading to positive free cash flow of ¥3.8 billion.

Financial cash flows were negative at minus ¥1.8 billion as a result of a dividend increase (of ¥2 per share) and loan repayments, whereas cash deposits increased ¥2.1 billion, thereby indicating continued stability of the financial base.

2 Financial Analysis of the Past 10 Years

The performance and financial results of the DKS Group for the period from April 2007 to March 2018 are analyzed as follows. (Cumulative totals are the totals over the 10-year period from April 2008.)

	April 2007– March 2008	April 2017– March 2018	Assessment/Comments
Net Sales	¥48.8 billion	¥56.9 billion	Increased 16.5%
Operating Income	¥623 million	¥5.05 billion	Record-setting profit, resulting in four consecutive years of profit growth
Operating Margin	1.3%	8.9%	Improved to a level near the 5-year target (9.0%)
Profit Attributable to Owners of Parent	¥436 million	¥3.35 billion	Increased approximately 7.7 times
ROE	2.9%	11.8%	Improved to a double-digit return on capital
Total Assets	¥46.1 billion	¥73.9 billion	Increased 60.2%
Net Assets	¥16.1 billion	¥31.9 billion	Increased approximately two times because of retained earnings and two capital increases
Interest-Bearing Debt	¥16.2 billion	¥23.8 billion	Increased ¥7.6 billion mainly due to capital investment funds
Net D/E Ratio	0.9	0.4	Improved significantly due to increases in net assets and cash deposits

	Total for 10 years from April 2008	Assessment/Comments			
Profit Attributable to Owners of Parent Cumulative Total	¥13.4 billion	Weak in the past 10 years; there was an impact from the financial crisis of 2008			
Capital Investment Cumulative Total	¥31.0 billion	Invested aggressively for growth since the fiscal year from April 2014 onward investing more than the amo			
Depreciation Cost Cumulative Total	¥20.6 billion	of depreciation by ¥10.4 billion			
R&D Expenses Cumulative Total	¥22.4 billion	Continued outlays for investment in technology			
FCF Cumulative Total	¥2.0 billion	FCF over the past 10 years increased slightly			
Dividend Cumulative Total	¥3.3 billion	Dividend per share increased for the fourth consecutive period			
Capital Increase	¥4.4 billion	Implemented public offerings on two occasions (March 2011, December 2014)			
Share Buybacks	¥1.0 billion	Determined as a shareholder return policy in January 2017			

3 Past Total Shareholder Return

Total shareholder return (TSR) by dividend and stock price was as follows. The stock price rose more than 100% over the past year, resulting in an annual TSR over the past five years of 27.6% and an annual TSR over the past 10 years of 15.5%. Meanwhile, during the previous fiscal year volatility (standard deviation) in the annualized weekly stock price was 46.8%, which was a greater degree of stock price variability than the 24.9% from the fiscal year ended March 31, 2017, and the 32.4% from the fiscal year ended March 31, 2016. The fairly rapid pace at which the stock price rose during the second half of last year is assumed to have had an impact on the volatility.



	10 years		5 years		3 years		2 years		1 year
	Cumulative total	Annual rate	Cumulative total	Annual rate	Cumulative total	Annual rate	Cumulative total	Annual rate	
DKS	321.5%	15.5%	238.4%	27.6%	119.9%	30.0%	147.7%	57.4%	108.2%
ΤΟΡΙΧ	73.9%	5.7%	83.6%	12.9%	18.5%	5.8%	32.9%	15.3%	15.9%
TOPIX Chemicals Index	157.7%	9.9%	145.1%	19.6%	43.0%	12.7%	58.9%	26.0%	23.8%

4 Future Financial Strategies/Shareholder Returns

Under REACT1000, our current five-year management plan, we have set "maintaining and enhancing an appropriate ROE level" as a management policy. In addition, as an action point we are promising all our shareholders a change from comparative value stock to growth stock. For our financial strategy going forward, while supporting medium- to long-term growth, we would like to implement measures to optimize the cost of equity.

Because we are a chemical manufacturer, continuous investments in plant and equipment, as well as R&D expenditures, are indispensable for achieving medium- to long-term growth. While maintaining continuing financial discipline, we are therefore investing for growth, and the main source of that investment will be internal reserves and interest-bearing debt. In addition, we believe an important option will be to conduct policy flexibly, such as making capital increases for growth or financially strategic acquisitions of treasury stock, based on our financial situation and stock market trends.

Specifically, we will steadily raise PBR to 1 or above by improving and maintaining ROE to a level above the cost of equity. Also, while maintaining financial discipline, we will bring about a reduction in the cost of capital to an appropriate level by using moderate leverage. While aiming for sustainable dividend growth, we will aim to optimize the cost of capital through flexible shareholder return measures in conjunction with share buybacks.

Financial and Nonfinancial 11-Year Summary

Financial Data (Millions of yen)	3/2008	3/2009	3/2010	3/2011
Net Sales	48,875	46,528	44,352	51,245
Surfactants	16,574	15,880	14,373	15,131
Amenity Materials	8,645	8,316	7,397	7,046
Polyurethane Materials	8,075	7,504	7,161	8,761
Functional Materials	10,576	9,406	9,467	11,441
Electronic Device Materials	5,003	5,420	5,950	8,863
Overseas Sales	7,726	7,572	6,692	8,748
Operating Income	623	298	1,575	2,732
Ordinary Income	351	(28)	1,239	2,439
Profit Attributable to Owners of Parent	436	(350)	503	1,155
Capital Expenditures	3,040	2,929	873	1,111
Depreciation and Amortization	1,778	1,700	1,733	1,836
R&D Expenses	2,058	1,936	1,863	2,010
Net Cash Provided by (Used in) Operating Activities	2,964	1,383	3,061	2,502
Net Cash Provided by (Used in) Investing Activities	(2,743)	(2,678)	(1,661)	(616)
Free Cash Flows	221	(1,295)	1,400	1,886
Cash Dividends Paid	195	117	195	298
Net Assets	16,172	14,438	15,316	16,498
Total Assets	46,166	41,749	44,291	47,741
Interesting-Bearing Debt ¹	16,259	16,259	14,499	14,098
Per-Share Data (yen)	10,207	10,207	14,477	14,070
Net Profit	11.17	(8.99)	12.89	29.38
Net Assets	392.73	350.23	367.84	367.85
Cash Dividend	5.00	3.00	5.00	7.00
Major Indices	5.00	5.00	5.00	7.00
Overseas Sales Ratio (%)	15.8	16.3	15.1	17.1
R&D Expenses to Sales Ratio (%)	4.2	4.2	4.2	3.9
•	1.3	0.6	3.6	5.3
Operating Margin (%)	2.9	(2.4)	1	7.7
Return on Equity (%)	1.0	(2.4)	3.6 1.2	2.5
Return on Assets (%)				
Equity Ratio (%)	33.2	32.7	32.4	32.9
Net D/E Ratio (times)	0.9	1.0	0.8	0.5
Year-End Stock Price (yen)	228	195	266	261
PER (times)	20.4		20.6	8.9
PBR (times)	0.6	0.6	0.7	0.7
Dividend Payout Ratio (%)	2.2	1.5	1.9	2.7
Nonfinancial Data	00 (00/	010	0/1
No. of Employees (consolidated)	934	894	910	861
No. of Employees (non-consolidated)	647	609	582	554
No. of Employees Outside Japan	125	131	129	131
Ratio of Female Employees to Total Employees (non-consolidated)	14.2	14.3	14.6	14.8
No. of Employees Who Utilized the Child-Care Leave System (non-consolidated)	5	6	8	6
No. of Employees Who Utilized the Child-Care Part-Time Work System (non-consolidated)	8	6	4	6
Annual Paid Leave Rate (non-consolidated + assigned employees) {%}	66.3	72.3	71.4	69.0
No. of Patents Held (overseas) ²	-	-	-	_
Generated Waste Amount (tons) ³	12,800	8,579	9,912	15,774
CO ₂ Emissions (consolidated) (thousands of tons) ³	46.6	43.1	37.4	57.5

1. Lease obligations not included in interest-bearing debt.

2. The collation method was amended to a legal effective date basis from FY 2016.

3. Data are presented on a non-consolidated basis up to FY 2009 and on a consolidated basis including Yokkaichi Chemical from FY 2010.

3/2012	3/2013	3/2014	3/2015	3/2016	3/2017	3/2018
56,249	51,843	54,614	55,597	52,782	52,254	56,955
18,779	19,486	20,359	21,573	20,779	19,793	21,416
7,220	6,825	7,141	6,856	7,208	6,986	7,502
8,634	8,466	9,564	9,442	8,934	9,093	9,115
10,228	9,666	10,680	11,216	11,259	12,517	14,070
11,386	7,398	6,868	6,508	4,600	3,862	4,850
8,296	7,323	8,103	8,743	9,131	8,794	9,929
2,033	1,754	2,477	2,944	3,439	3,944	5,053
1,742	1,544	2,374	2,717	3,200	3,773	4,725
165	797	1,336	1,782	2,198	2,489	3,351
2,312	3,664	1,512	3,948	8,485	3,786	2,467
2,252	2,003	2,104	2,153	2,087	2,335	2,473
2,273	2,340	2,506	2,439	2,380	2,393	2,307
2,309	2,477	3,553	2,322	4,197	3,750	5,017
(2,869)	(3,548)	(1,793)	(3,229)	(7,687)	(3,336)	(1,130)
(560)	(1,071)	1,760	(907)	(3,490)	414	3,886
298	298	298	474	528	608	710
16,949	18,200	19,886	26,156	26,745	28,044	31,960
51,357	55,416	57,570	64,420	66,057	69,046	73,976
15,700	18,712	20,679	21,322	23,227	24,594	23,863
10,700	10,712	20,077	21,022	20,227	24,074	20,000
3.87	18.68	31.32	38.69	41.64	47.40	66.06
377.77	404.39	440.00	472.40	485.05	529.94	594.15
7.00	7.00	7.00	9.00	10.00	12.00	14.00
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	,			
14.7	14.1	14.8	15.7	17.3	16.8	17.4
4.0	4.5	4.6	4.4	4.5	4.6	4.1
3.6	3.4	4.5	5.3	6.5	7.5	8.9
1.0	4.8	7.4	8.2	8.7	9.5	11.8
0.3	1.5	2.4	2.9	3.4	3.7	4.7
31.4	31.1	32.6	38.7	38.8	38.9	40.8
0.6	0.7	0.6	0.4	0.5	0.5	0.4
246	250	322	387	328	427	875
63.6	13.4	10.3	10.0	7.9	9.0	13.2
0.7	0.6	0.7	0.8	0.7	0.8	1.5
2.9	2.8	2.2	2.3	3.1	2.8	1.6
995	979	969	944	982	967	976
533	526	514	508	495	486	497
133	135	135	142	150	189	193
14.8	14.8	16.0	15.9	17.0	17.5	17.5
10	10	8	11	9	6	12
7	11	8	9	10	13	10
66.7	62.7	63.7	61.0	64.5	62.4	67.4
_	636 (237)	660 (245)	722 (299)	822 (344)	855 (378)	924 (427)
13,395	14,421	12,724	13,876	13,191	17,364	20,770
49.8	51.9	52.0	51.3	50.9	52.5	53.9

Financial and Nonfinancial Highlights

Financial Highlights (Consolidated)

Net Sales/Overseas Sales Ratio



Dividend per Share/Dividend on Equity (DOE)



Operating Income/Operating Margin





Interest-Bearing Debt*

Nonfinancial Highlights (Group/Non-consolidated)





CO2 Emissions (Group)



5.9

Data

ROE Analysis Based on the DuPont Model





3/2015

3/2016

Net Profit Margin

[%]

Asset Turnover Ratio





3/2014

0.0



3/2017

3/2018



Number of Employees to Utilize the Child-Care Leave/Child-Care Part-Time Work Systems (Non-consolidated) (People) Male Female Child-Care Part-Time Work System 15 -13 12 -10 10 99 9 -8 7 7 7 5 6 -5 2 2 3-0. 3/2014 3/2015 3/2016 3/2017 3/2018

Ratio of Female Employees (Non-consolidated)



Five Core Business Segments



Surfactants



Segment outline

Since the Company's founding in 1909, the surfactants segment has been a core business for more than 100 years. DKS surfactants provide high added value to a wide variety of B2B products in the energy, machinery, metal, colorant, rubber, plastic, IT, electric and electronic sectors.

DKS is developing products in line with the recent increase in environmental awareness around the world. In particular, it is developing and manufacturing eco-friendly products mainly at its Yokkaichi and Shiga branches using natural oils and petrochemicals as raw materials.

A review of the fiscal year ended March 2018 and an outlook for the future

During the fiscal year ended March 2018, this segment saw overall growth in net sales and overall strength in operating income.

Although sales were fairly low for rubber and plastic applications, sales for machinery and metal applications were strong while sales for IT and electronics applications saw growth. Sales for soap and detergent applications grew noticeably.

The segment is working to accelerate the shift of the Kasumi Plant to a mother plant. Production of nonionic surfactants at this plant began in July 2017. The Company is focusing on leveraging its core technologies to develop highly functional products in line with the needs of its customers in Japan and around the world.



The strengths of DKS and the main functions of the business

The history of soap, which is representative of surfactant products, traces back to the ancient Romans. After that period, the focus moved from just the washing of dirt from hands and feet to also include items offering the functions of dispersion and emulsification, particularly those affecting the surface of different substances, such as oil and water.

The functions required of surfactants have become more diversified and more sophisticated as the industries in which the Company's customers operate have evolved.

DKS has developed polymerizable surfactants that function as surfactants and then enhance the properties of target materials such as water resistance and is working on expansion of the market.

DKS's five-year management plan REACT1000 aims to expand sales as a "Uni-Top" market leader by leveraging our fine-grinding technology to meet the performance requests of our customers.

Strategies for future/risks and opportunities

The surfactants domain is where DKS can take advantage of its technologies and experience accumulated over many years. Growth in demand for polymerizable surfactants is expected in the paint/coating and adhesive/binder industries. Meanwhile, the Company faces many competitors in this domain, including domestic chemical manufacturers producing detergents and dispersants. To maintain profitability in the segment, the Company is focused on spurring growth by developing high-value-added products that meet customers' needs and/or are eco-friendly.

Amenity Materials



Segment outline

The Amenity Materials segment provides materials and peripheral application technologies necessary for a comfortable living environment. The Company provides materials suitable to the products of customers in a wide range of industries including foods, pharmaceuticals, cosmetics, toiletries, fisheries/livestock, textiles, pulp/paper, civil engineering, agrochemicals and agro-materials.

In addition to core-technology surfactants, DKS manufactures products made from natural raw materials, including sugar and pulp, at the Shiga and Ohgata branches in line with the Company's commitment to preserving the environment.

A review of the fiscal year ended March 2018 and an outlook for the future

During the fiscal year ended March 2018, this segment saw overall growth in net sales and saw significant growth in operating income.

Although sales in Japan for cellulose polymer materials for feed applications were fairly sluggish, sales for energy and environmental applications saw growth. Sucrose fatty acid esters in Japan saw strong sales for food applications, whereas overseas sales saw positive growth for food and cosmetics applications.

The segment views the overseas markets as a growth field and explores its customer base to improve the comfort of daily life by providing highly functional products.



The strengths of DKS and the main functions of the business

With more than 65 years of experience in cellulose polymers using pulp and more than 50 years of experience in sucrose fatty acid esters using sugar, the Company has a long history in product development and is developing markets based on the basic and application technologies accumulated to date.

In areas such as food and cosmetics, taste and texture can be greatly affected by thickening, dispersing or emulsifying. The effects of the products providing these functions become clear when used in customer products.

The Company is focused on expanding sales by providing its customers with highly functional products that are both safe and reliable.

Strategies for future/risks and opportunities

While the Amenity Materials business targets companies operating in a wide range of industries, the domestic market for the segment appears unlikely to expand moving forward given current demographic trends. The Company nevertheless targets stable sales and profitability in Japan in line with the customer base acquired to date. On the other hand, DKS targets an expansion in product sales overseas, which the Company views as an area for growth, especially for food and cosmetics-related applications.

The Company's competitors in the field can be said to include food additive manufacturers.

Data

Polyurethane Materials



Segment outline

The segment provides polyurethane materials and industrial materials, including paints, adhesives, civil engineering and construction materials, and electric insulation materials. The main areas of development include lower density soft urethane foams, polyether polyols for rigid urethane foams with enhanced heat insulation and flame retardancy, and rock hardening agents primarily used for mountain tunnel projects and polyether polyols to make flexible or rigid urethane foams.

Petrochemicals used as the mainstay raw materials in the segment are mainly manufactured at the Yokkaichi Branch.

A review of the fiscal year ended March 2018 and an outlook for the future

During the fiscal year ended March 2018, this segment saw overall strength in net sales but saw a sharp drop in operating income.

Although sales for construction and other functional polyurethane applications were sluggish, an increase in public works projects contributed to positive sales for civil engineering–related chemicals. Sales of HFC regulation compliant, eco-friendly synthetic lubricants were somewhat sluggish.

Following the start of production at the Kasumi Plant in 2016, the Company has been aiming to expand sales of rock hardening agents for tunnels, for which the Company maintains both a high share and proven track record, for the Linear Chuo Shinkansen.

Moreover, the Company commenced construction of functional polyurethane products production facilities at the Kasumi Plant. Completion is scheduled for June 2019.

Operating Income (¥ million)



The strengths of DKS and the main functions of the business

The main functions of products in the segment are adhesion, insulation and water stopping, which are all areas in which the Company gains an advantage from its unique technologies and experience. The Company has established a safety education and training center at the Kasumi Plant, where production takes place; aims to promote the training of human resources throughout the group to generate synergies; and is working to build on its strengths to better meet the needs of its customers.

Strategies for future/risks and opportunities

The Kasumi Plant, which was built at the Yokkaichi third complex, began full-scale operations in December 2015. Further expansions are progressing in line with the Company's plan to make the facility a mother factory. The Company aims to develop and manufacture high-quality products through a combination of applied technologies and the most cutting-edge equipment.

Risks to the segment include competitors and the growth potential of the market. While maintaining a focus on the potential for growth in the target market, the Company also aims to improve manufacturing capacity and its technological abilities to best its competitors.

The segment is developing water-reactive (foaming) polyols and synthetic lubricants that are eco-friendly and in line with HFC regulations, and in IT products is working to reduce volatile organic compounds (VOCs) by developing a single-component waterborne insulating coating. Although environment-related measures can be considered risks, we remain committed to finding opportunities to develop eco-friendly products.

Competitors in this business include civil engineering and building construction firms, as well as electronic materials manufacturers.

Functional Materials



Segment outline

The Functional Materials segment supplies various plastic additives indispensable to the highly functional plastics and rubber used in our living environment such as personal computers, smartphones and home electronics, as well as radiation-curable monomers and oligomers, flame retardants, antistatic agents, lubricants, anti-clouding agents and antioxidants, among others.

Waterborne polyurethanes being developed since 1973 are used in coating wood and plastic, metal and paper coating agents, film and wood adhesives, and paper/fiber binding.

Although the Ohgata and Yokkaichi branches have been the main manufacturing bases for these products, the manufacturing of new products now takes place at the Kasumi Plant.

A review of the fiscal year ended March 2018 and an outlook for the future

During the fiscal year ended March 2018, this segment saw significant overall growth in net sales and operating income.

In Japan, sales of waterborne polyurethanes for textile applications grew, as did sales of flame retardants for rubber and plastic applications. Sales of radiation-curable resins for IT and electronics applications grew noticeably.

Thanks to recent years spent developing the market, radiation-curable resins made a strong contribution to both net sales and operating income as new highly functional products.

Overseas, sales of radiation-curable resins for IT and electronics applications saw growth, while sales of flame retardants for rubber and plastic applications saw noticeable growth.



The strengths of DKS and the main functions of the business

The technology used in radiation-curable monomers and oligomers is called radcure (UV or EB curing) in which a resin composition such as paint is instantaneously dried and cured by irradiating it with ultraviolet light (UV) or an electron beam (EB). Radcure technology is widely used in a variety of fields to conserve resources and energy and to reduce the environmental impact. Its uses include clear paint for building materials and furniture; anticorrosive paint for metals; resist materials for semiconductors, dry films and LCDs; coating agents for mobile phones, optical fibers, plastics and paper; printing inks and plate-making materials; and adhesives.

Brominated flame retardant raw materials are sourced from bromine production sites worldwide, with the market for plastic applications mainly overseas. Brominated flame retardants demonstrate higher flame retardancy than conventional phosphorus and inorganic flame retardants.

Waterborne polyurethanes allow the polyurethanes, a kind of plastics, to be dispersed in water and are therefore increasingly essential as the world moves away from organic solvents.

DKS is developing a variety of products through the combination of technologies that exhibit flame retardancy and surface coating.

Strategies for future/risks and opportunities

Target markets for this business include those with strong growth potential and areas both in Japan and overseas in which the Company believes it can demonstrate its strengths. While competitors include electronic materials manufacturers and overseas flame retardant manufacturers, the Company is looking to secure growth through its unique technologies and proposal capabilities.

Data

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Electronic Device Materials

Net Sales (¥ million)



Segment outline

As evidenced by the spread of the Internet and smartphones, as well as the increase in solar power generation facilities, there has been a clear advancement in the information society and a concerted effort to create a more eco-friendly society. Since the 1980s, DKS has been developing ion-conductive polymers and ionic liquids and continues to advance the supply of products in these areas of growth. We are also developing and supplying lithium-ion battery materials, ceramic materials and conductive pastes.

Mainstay products in the electronic device materials segment are produced at subsidiary companies Dai-ichi Ceramo (Shiga) and Kyoto Elex (Kyoto).

A review of the fiscal year ended March 2018 and an outlook for the future

During the fiscal year ended March 2018, this segment saw noticeable growth overall in net sales and operating income.

Although sales of injection molding pellets dropped sharply, a recovery in conductive pastes for solar cells resulted in noticeable growth in this segment.



The strengths of DKS and the main functions of the business

DKS is focused on developing business activities at the subsidiary companies that make use of the Company's surfactant technologies. The Company's surface chemistry, which is its core technology, is used in the mixing techniques of resins and ceramic powders or organic materials and metal powders. We can conduct mixing operations under special conditions or with a high level of viscosity thanks to our unique and extensive experience and detailed know-how in the process.

The main features of our products are their high degree of efficiency and precision. As an example, ionic liquids are compounds made of ion pairs, which generally assume a liquid state at temperatures of 100°C or less. They have no vapor pressure and are nonflammable. Because they are highly safe and efficient thanks to having high ion conductivity, we are developing electrolyte applications for lithium-ion batteries and capacitors. These liquids are also attracting attention as next-generation materials in the energy device field and as green solvents for reducing environmental impact.

Strategies for future/risks and opportunities

We expect a tough operating environment ahead for the segment as there is some degree of uncertainty over the potential growth for the industry and existing applications for segment products. On the other hand, we aim to achieve growth and meet the quality demanded by our customers by making full use of the group's technologies and promoting R&D efforts to advance the development of next-generation products.

Product Pickup

$\left[\ \ CELBINDER \ \$ Dispersant for lithium-ion batteries

Lithium-ion battery (LiB) market

The rechargeable battery market is expected to increase some 1.5 times over the five years starting in 2016. In particular, the market for automotive LiBs is expected to reach ¥2 trillion, a size that is equivalent to 2.5 times the size of the market in 2016.¹ This growth is due to the burgeoning "EV Shift," whereby the world is transitioning from gasoline and diesel vehicles to electric vehicles (EVs). France and the United Kingdom have even worked out policies to ban the sale of

gasoline and diesel vehicles by 2040, whereas China has taken steps to support the greater use of EVs and plug-in hybrid electric vehicles (PHEVs) as part of its national policy.

When LiBs are equipped on EVs, there is a particular demand for a high level of safety, so sodium carboxymethyl-cellulose (CMC), a type of cellulose derivative, is used as the battery cell material dispersant.

Role of CELLBINDER in LiB cell applications

In almost all cases today, the production of LiB anodes utilizes a process in which the active material that stores the electricity and the conductive additive that supports electron conductivity are formulated into waterborne coatings. CMC functions as a dispersant that blends both the active material and the conductive additive with water, but also functions as a thickener to provide these coatings with the appropriate degree of viscosity. These coatings must be applied evenly and uniformly on the copper foil current collector. With conventional general-purpose CMC, however, these coatings contain undissolved CMC components, making it difficult to apply these coatings uniformly.

The Company discovered a way to fully minimize the amount of undissolved CMC by uniformly introducing substituents, which it used to develop the CELLBINDER LiB

Figure 1. Comparison of the discharge load characteristic for CELLBINDER and general-purpose CMC

CELLBINDER

General-purpose high-viscosity CMC added at 1% (viscosity of 1% aqueous solution at 25°C is 6,500 mPa•s) General-purpose low-viscosity CMC added at 2% (viscosity of 1%

aqueous solution at 25°C is 150 mPa•s)



Conditions: Discharged at 3–10C under a constant temperature of 20°C. Compared using the capacity retention where the discharge capacity at 1C is 100%.

1C indicates the current value when the battery is fully discharged over one hour from a fully charged state.

dispersant. In addition to enabling uniform coating, CELLBINDER was found to decrease the resistance more than general-purpose CMC. Improved discharge load characteristic (Fig. 1) and low-temperature characteristic (Fig. 2) were also observed.²

Given that LiBs are an important factor that holds the key to the success of EVs and PHEVs, in the future these LiBs will demand greater performance in terms of higher capacity and faster charging and discharging rates, as well as in terms of a higher level of safety and reduced environmental impact.

To achieve these performance demands, the Company aims to expand the use of CELLBINDER as a battery performance improving dispersant and thickener.

Figure 2. Comparison of the low-temperature characteristic for CELLBINDER and general-purpose CMC

CELLBINDER General-purpose high-viscosity CMC added at 1% (viscosity of 1% aqueous solution at 25°C is 6,500 mPa-s) General-purpose low-viscosity CMC added at 2% (viscosity of 1% aqueous solution at 25°C is 150 mPa-s)



Conditions: Discharged at 1C under a constant temperature of -20°C. Compared using capacity retention where the discharge capacity at a discharge rate of 1C is 100% under a constant temperature of 20°C. References:

1. FUJI KEIZAI CO., LTD., Battery Market 2017: Comprehensive Survey for Current Aspects Vol. 1 2. DKS Co. Ltd., Takuto Newsletter, No. 574, pp. 11–14 (2015)

The Three Core Technologies of DKS

DKS was founded in 1909 for the development and sales of a cocoon unwinding agent for use in spinning. Since its founding, the Company has cultivated three categories of technology: synthesis, blending and analysis. These have created the base for DKS, allowing it to create unique technologies to meet the requirements of many industries.



Production of a chemical agent in one corner of the Ohno Kungyokudo incense shop in 1909

Important CSR Issues

Basic Policies

We are confronted with a broad range of issues, from environmental problems such as global warming, resource depletion and a crisis of biodiversity to an increasing population that causes food resource and energy problems amid rapid globalization and an increasingly information-based society. We look to take on these challenges and to protect our environment and way of life while improving safety and level of comfort. To do these things, we pursue "Chemistry provides a solution" and contribute to the establishment of a sustainable society.

Identifying Important CSR Issues (Materiality)

At DKS, we are formulating "materiality," tackling issues from a long-term perspective. In the formulation of materiality, we have referenced the UN's Sustainable Development Goals (SDGs),* ISO 26000 and other global guidelines, given the important demands that international society places on DKS as we work to advance business globally.

*At the UN Sustainable Development Summit held in September 2015, there were 17 SDGs adopted to find solutions to issues the world is facing.



Relationship between the Five Important DKS Issues and Global Guidelines

DKS's important	Activity details	Relation to global guidelines	
CSR issues		SDGs	ISO 26000
Quality and Safety Management (P.32)	Providing highly safe products	12 CONSISTENT	Consumer issues
	Ensuring quality assurance and securing product safety	12 CONNET	Consumer issues
	Promoting occupational safety and health		Labor practices
Research and Development (P.34)	Responing to potential and apparent needs with "Uni-Top" strategy promotion	17 Honorado	Consumer issues
	Developing products that contribute to the environment	3 600 KEAR	Environment
	Promoting an intellectual property strategy	9 tecenologica	Fair operating practices
3 Human Resource Management (P.36)	Securing and nurturing outstanding human resources	4 terris	Labor practices
	Promoting diversity	5 mmr	
	Health management initiatives	3 500 MEASING ∕V√◆	Labor practices
	Growing globally and contributing to regional economies	8 HEX MILLION	Community involvement and development
	Responding to climate change (reducing GHGs)	13 EAR	Environment
4	Managing chemical substances	12 CONNET	Environment
Consideration for the Environment (P.38)	Reducing industrial waste	12 Connection	Environment
	Preserving the air, environment & water resources	6 Edusativ	Environment
5 Responsibility as a Global Company (P.42)	Raising management transparency with the appropriate disclosure of information	16 Addition	Organizational governance
	Strengthening risk management	12 ADVICES	Organizational governance
	Risk Management Manual (BCP)	11 SECTION OF THE SEC	Environment
	Establishing a compliance structure	16 Addition	Fair operating practices

Sustainable Development Goals (SDGs) Stipulated by the United Nations



Seven Core Subjects of ISO 26000



Important Issue 1 Quality and Safety Management

Basis of Quality Assurance

Our Company established its Quality Assurance Management Regulations and Quality Policy in 1995. Providing high-quality, safe and reliable products based on quality assurance, we are working to realize improvements in customer satisfaction.

- We establish quality-related management standards for each department that cover the entire process, from product planning to customer service through design/development, manufacturing and sales. Through the appropriate operation of such standards, we strive to provide high-quality products that are safe and reliable, maintain and improve product quality, and provide quality assurance for our customers.
- 2. To effectively bring about quality assurance functions throughout the entire Company, we establish and maintain a quality management system.
- **3.** All our employees must observe this basic concept of quality assurance and carry out tasks in accordance with the Quality Assurance Management Regulations.



Quality Control System

We are committed to the maintenance and improvement of product quality using ISO 9001 as a basic tool in our quality management system. We execute PDCA cycles to provide products and services that satisfy customer demands and comply with laws and regulations, and we are continuously working to improve the level of satisfaction among our customers. In addition to day-to-day activities (such as product quality review meetings, corrective measures and preventive actions relative to complaints/nonconformity, audits, change control and training), we are implementing periodic reviews of the management system in line with our goal of promoting the further integration of ISO and business activities.

QC System Diagram



Quality Assurance (QA) System

We view quality assurance as fundamental to our business, and as we keep our Quality Policy in mind, we continue to promote QA activities from product design/development, manufacturing and sales to customer service through each relevant department. The QA Department, which was established in April 2018, is charged with supervising quality assurance and has strengthened the system for coordination between our departments. In line with the diversifying customer demands and the heightened requirements for product quality from a social perspective, we remain committed to working to ensure product safety and guality, as well as trying to prevent quality-related issues before they arise.



Product Safety (chemical substance management from design-development)

Our environmental and safety philosophy is centered on contributing to the sustainable development and realization of happy societies by considering human health, safety and environmental preservation throughout the life cycle of each product from development to scrapping. We put this philosophy into practice in the design and development of our products, and it is the driving force behind measures such as the creation of chemical substance management regulations for the appropriate management of chemical substances, the establishment of a system designed to ensure compliance with laws and regulations related to chemicals in Japan and overseas, and the provision of information on product safety and applicable laws to our customers.

Product Safety Mechanism

Customers & Local Communities								
Search & Investigation	Design & Development	Research & Preproduction	Commercial Production (Product Sales)					
Required Quality			Securing of Product Safety					
		Process Review	Process Safety and Disaster Prevention					
Planning	Product Design	Commercial Production Review	Stable Supply					
		Occupational/Process Safety & Disaster Prevention	Technical Service					
 Investigation of technological information Investigation of laws and regulations 	 Realization of quality Safety confirmation Environmental impact assessment Investigation of conformity with applicable laws and regulations Investigation of raw materials 	 Production technology review Product evaluation (safety/packaging) Compliance with applicable laws and regulations Environmental impact assessment Securing of raw materials Creation of SDS and technical documents 	 Quality control Response to improvement request Provision of product information Regulatory compliance Environmental conservation Securing of distribution safety 					

Compliance with Chemical Substance Laws and Regulations

With the goal of obtaining the latest information and enacting management measures to ensure compliance, we continue to monitor trends in not only domestic laws such as the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Law, the Food Hygiene Law, and the Poisonous and Deleterious Substances Control Law but also the Export Trade Control Order in regard to products for export, and overseas laws and regulations, including those dealing with conflict minerals and rules regarding the registration of chemical substances. We also focus on the sharing of information by using groupware to post outlines of revisions to laws and regulations.

Provision of Product and Technical Information

Our products are utilized in a variety of industrial fields, and we provide product and technical information tailored to the characteristics of each product and service. We always respond to requests and inquiries from our customers quickly, adequately and in good faith. We also provide information on hazardous materials to ensure safe handling, including that relative to product properties, applicable laws and regulations, transportation, handling methods and emergency measures by means of safety data sheets (SDS). We provide information using chemSHERPA, an information transfer scheme for chemicals contained within products throughout the supply chain. We also promote product labeling and issue SDS

Efforts to Reduce Complaints/Nonconformity Products

Because we position quality-related nonconformity (complaints/deviation) as an important issue for securing quality, we check any appearance of nonconformity, determine the cause and verify the corrective action and its effectiveness to prevent reoccurrence. We also attempt to handle any product complaints we have received quickly, adequately and in good faith. Information on complaints and nonconformity is managed centrally via the Company's intranet, and we implement appropriate measures to related to compliance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and compliance with local regulations for exports to the United States, Europe and Asia. We have continuously updated our SDS and labeling to remain in compliance with the revised Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the Industrial Safety and Health Law, as well as the Poisonous and Deleterious Substances Control Law. When introducing our products, we not only focus on close communication with our customers through daily business meetings but also disseminate information through brochures and technical documents.

prevent any similar recurrences. In addition to our efforts aimed at preventing the reoccurrence of nonconformity, in the fiscal year ended March 31, 2018, we conducted a review of our system and implemented new measures in line with the priority to which we give to responding to our customers with speed and the appropriate measures whenever such an event occurs. In the years to come, we will continue to strive to improve customer satisfaction by adopting innovative measures to further reduce nonconformity.

Important Issue 2 Research and Development

DKS's Foundation That Underpins Strategies

As an industrial chemical manufacturer, it is our management philosophy to continue to be a prominent company that responds to the expanding chemical requirements of industries. To realize that philosophy, we are focusing on the research and development of high-value-added products, with a particular focus on products with IT and electronics-related applications, and the development of new applications for battery materials and cellulose nanofibers. With innovative wisdom and technologies, we are pursuing "Chemistry provides a solution" in every industry and developing products that can contribute to a sustainable society.

R&D System

We established the Life Sciences R&D Department, which is focused on the development of cellulose nanofibers, and the Elexcel R&D Department, which develops applications for battery materials, within the Research and Development Headquarters as part of the reorganization to a system promoting new development and collaboration with the Corporate R&D Department in charge of new development, new businesses and companywide research themes. In addition to promoting in-group cooperation between the Functional Chemicals R&D Department, which mainly conducts product development for the Surfactants and Amenity Materials segments, and the Plastic Materials R&D Department, which is responsible for the development of products for the Polvurethane, Functional Materials and Electronic Materials segments, we are working to accelerate research and development through cooperation with outside entities such as public research institutes, universities and customers. The Production Technology Department provides support for the innovation and creation of new production technologies.

R&D Investments

In FY 2017, the total expenses required for R&D amounted to ¥2,307 million, which represented 4.1% of net sales. The total number of R&D personnel of the Company and the domestic subsidiary companies was 180, which was equivalent to around 18% of all employees (as of March 31, 2018).

R&D Costs



R&D System Diagram



Number of Patents Obtained

Mindful of future business development, we actively promote the filing and obtaining of intellectual property (IP) rights based on R&D results. Recently, to provide our business operations with stronger backup, we have been focusing on improving the quality of our patents through enhanced information retrieval functions. We will continue to respond to the globalization of our business and acquire rights securely for important domestic and foreign markets.

Number of Patents Held*


Our Products and Technology Development

Eco-Friendly Products and Technology Development

We supply products that meet environmental requirements, including global warming prevention, energy and resource saving, environmental protection and prevention of environmental pollution, and engage in the development of related technologies.

Environmental requirement	Functions & features	Our product lineup & technology/Application		
		Lithium-ion batteries		
	Clean energy	CELLBINDER Series	Binder for lithium-ion batteries	
Global Warming	otean energy	ELEXCEL ACG Series	Gel polymer for lithium-ion batteries	
Prevention		DD-1200C Series	Conductive paste for solar cells (lead-free)	
	Halagan fraanacc	DK BE-CLEAR Series	Waterborne detergents	
	Halogen-freeness	DK POLYOL 3000 Series	HFC ¹ -free water-reactive polyols for urethane foams and insulating materials	
		COLOURSOL CT-171D	Dye accelerating/leveling agents for polyester	
	Energy efficiency	NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coating agents	
Energy & Resource		DK SYSTEM NF Series	HFC-free systems for rigid polyurethane foams and insulating materials	
Saving	Effective resource utilization Extension of life span	Slag anti-solidification agents		
		ELEXCEL IL Series	lonic liquids/energy device materials	
		EIMFLEX Series	Polyurethanes for electric insulation/sealants	
	Eco-friendliness	NOIGEN XL Series, NOIGEN TDS Series	Nonionic surfactants/emulsifiers, cleaning agents	
		RHEOCRYSTA Series	Cellulose nanofiber water dispersion	
		AH212	Organic alkaline agents	
Environmental		SUPERFLEX Series	Polyurethane water dispersions and paints, coating, binders	
Protection,	VOC ² reduction	EIMFLEX WF Series	Waterborne polyurethanes for electric insulation/sealants	
Prevention of	VUC ² reduction	ELASTRON Series, ELASTRON BN Series	Thermoreactive polyurethane water dispersions, binders, adhesives	
Environmental		NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coatings	
Pollution	Reduction of	HITENOL Series, NOIGEN Series	Polymerizable surfactants, emulsifiers for emulsion polymerization	
	environmental impact	TRIBIO Series	Polylactic acid modifier agent	
	Removal of	SEACLE N-800	Marine oil spill treatment agents	
	contaminants	DEOPELLET Series	Foul odor gas absorbents for absorption towers	

1. HFC: Hydrofluorocarbons

2. VOC: Volatile organic compounds

Products to Meet Environmental Requirements

Having developed RHEOCRYSTA, a cellulose nanofiber product made from cellulose—a recyclable, eco-friendly material—DKS is advancing the development of applications that make the best use of its unique properties as a high-performance additive. We are also developing hydrophobic cellulose nanofibers dispersed in organic solvents to expand the scope of its applications.

DKS began to manufacture and sell HITENOL and



NOIGEN Series polymerizable surfactants in the 1980s. Such eco-friendly products as water-based paints and adhesives, which have been popular in recent years, offer excellent water resistance and adhesiveness. The new HITENOL AR Series products offer excellent copolymerization qualities with a wide range of monomers and improve the water resistance of and inhibit the formation of bubbles in paints and adhesives.



Important Issue 3 Human Resource Management

Securing Superior Human Resources, Ensuring Diversity

Human Resource Philosophy Respect for Humanity

Our fundamental human resource philosophy is rooted in the idea that our people are our assets and must be nurtured and treasured.

Our basic understanding is that the growth of our people will support the growth of the Company. The employees are supposed to actively play their roles in each workplace; learn, grow and exhibit their capabilities; and try to fulfill themselves. This way, we believe that they become the power of prosperity of the Company and the source to make it eternal.

Respect for Human Rights and Diversity

▶ Efforts to Prevent Harassment

We are trying to prevent harassment through, for example, educational programs in hierarchical training courses. Several persons are selected as contacts, even from outside the Personnel Department, so that anyone can easily find someone to talk to and get advice from, and in addition, whistleblower portals in and out of the Company are in place.

▶Work-Style Reforms

• Work-Life Balance

We promote well-balanced work and home/family lifestyles, and various benefit programs are in place. Every worker, as a corporate citizen, should be able to work all the time with enthusiasm and enjoyment, including our Chairman, Mr. Sakamoto, who also chairs the Kyoto Labor Standards Association. For FY 2017, the actual ratio of annual paid leave taken was 67.4%. In the years to come, we will promote initiatives toward achieving 70%, which is the target by the Cabinet Office. There has been an increase in men taking childcare leave in recent years. In the fiscal year ended March 31, 2018, 42% of those using childcare leave were men.

► Promotion of Employee Participation and Advancement Having set up an Employee Participation and Advancement Promotion Committee chaired by the Company chairman, we

Human Resource Development/Education

Global Human Resource Development

We are undertaking a variety of projects based on the DKS Group's globalization strategy.

In recent years, our efforts have focused on the active recruitment of non-Japanese exchange students, conducting a global mind-set and skill training sessions geared toward employees ranging from the young to those in mid-level positions, the short-term acceptance at domestic departments in Japan of local staff members from overseas bases, and visits to overseas subsidiaries to exchange views on global issues with workers at those companies and better understand different cultures.

We also are actively involved in other initiatives, such as in-house language programs and select training sessions for global executives. We will continue to accelerate the globalization of the DKS Group.

Human Resource Development Policies

1. Development of Professional Workers

We aim to train professional human resources who have high market value and can work on their own initiative.

- (1) People possessing advanced, specialized skills
- (2) People who recognize and achieve their roles and goals
- (3) People who raise and solve issues themselves(4) People who demonstrate leadership in the workplace

2. Development of Autonomous Personnel

Switch to human resources able to work on their own initiative through their own motivation

are aiming for a human resource group capable of successfully contributing to improvements in Company performance. We aim to create an environment in which we can maximize the abilities of diverse employees, including women, seniors, people with disabilities and LGBT, and enable them to take an active part.

• Promotion of Women's Participation and Advancement In addition to an environment that facilitates many and continuous working years for women, in the years to come we will maintain a work environment that enables women to develop their careers and implement measures aimed at having 7.0% or more of managerial positions occupied by women. As of the end of April 2018, the ratio had risen to 6.8% compared with 6.3% as of the end of April 2017.

• Retiree Reemployment System

In reemploying all applicants as "senior challenge staff," we conduct *monozukuri* (manufacturing) by handing down the techniques and skills that make the best use of the experience they have accumulated over many years.

• Employment of People with Disabilities

We are actively working to create opportunities for people with disabilities to play active roles in the workplace according to their individual abilities and aptitudes.

Education Courses

Education programs for our employees are supported by three pillars: in-house on-the-job training, external education to learn skills and abilities, and assisting self-development. We have focused in recent years on manners-related training for our younger workers, as well as enhancing our brother/sister program, which provides backup support for new employees by pairing them with more seasoned employees. The Company is focusing its attention on human resource training in other areas

as well, including by bolstering its support of employees aiming to improve their own abilities, be it through correspondence learning, the acquisition of qualifications or other forms of self-development.



General view of a training session

Efforts in Healthy Company Management

We aim to bolster the Company's productivity, and thus its corporate value, by maintaining and improving the health of our employees, which is a key RETURN component in the REACT matrix of action guidelines targeting Sustainable Development Goal No. 3: *Ensure healthy lives and promote well-being for all at all ages.*

Healthy Company Declaration Regarding its employees as Company assets, DKS will strive to maintain and improve their health.

Concept of Healthy Company Management



Efforts in Healthy Company Management

DKS was recognized for the first time in 2018 as a White 500 Organization, receiving certification from the Ministry of Economy, Trade and Industry (METI) as an outstanding entity engaging in health and productivity management. Five of our subsidiaries also have received certification. The program is designed to honor large, as well as small to medium-sized companies, showing excellence in health and productivity management based on initiatives for the improvement of health being advanced by the Nippon Kenko Kaigi and efforts to address health-related challenges in regional locations.

We also acquired the highest health management rating from the Development Bank of Japan Inc. (DBJ).

The purpose of acquiring the rating is to assess Company efforts through the eyes of external organizations, which could lead to further improvements in corporate value in the years to come.



Communication with Employees

► Holding of "Festa"

We hold Festa, which are festivals for each region, to promote the good health of employees and their families and broad exchanges. Elaborately planned events, such as an athletic meet, bowling competition, tuna filleting show and cooking of *takoyaki*, are useful in facilitating active inter-departmental and intergenerational communications.



▶ Health Management Initiatives

The Company's health checkup participation rate, the re-checkup participation rate, the health guidance implementation rate and the stress check rate all stand at 100%. We support daily exercise with morning calisthenics and provide nutritious and well-balanced meals at canteens. In addition to designating separate areas for smoking, we educate all employees on how best to prevent lifestyle-related diseases and fully subsidize influenza vaccinations. The Company has established internal and external contact centers for mental and physical issues, extending acceptance to family members such as parents. We provide mental health education for all our employees and for employees who work long hours, and we have established interviews with occupational physicians that exceed the statutory requirements. In addition to understanding the results of health checkups and stress checks at the management level, we believe the enhanced health of our employees bolsters the overall strength of the Company.

Information Transmission inside the Company

Publishing the in-house newsletter "DKSCOM" every other month, our Public & Investor Relations Department works to instill the management policies and visions, as well as to foster communications within the Company. Feedback is also taken into consideration in planning the newsletters so that information can be disseminated and clearly understood by all employees in a timely fashion.



Important Issue 4 Consideration for the Environment

Basic Philosophy and Basic Policies for Environmental and Safety Practices

Basic Philosophy

Our basic philosophy is to contribute to society by making a company that thrives together with local communities and employees by supplying products that satisfy customers. Based on this, our environmental and safety philosophy is to contribute to the sustainable development and realization of happy societies by considering the human health, safety and environmental preservation throughout the life cycle of each product from development to scrapping.

Basic Policies

- Throughout the life cycle of each product from development to scrapping, we evaluate and minimize the impact of business activities on the environment and make the best efforts to preserve the environment.
- (2) We aim at accident- and disaster-free operations to secure the safety of both local communities and employees.
- (3) We confirm the safety of raw materials, semi-finished products and final products to prevent health-related disorders of all relevant people including, but not limited to, employees, logistic/transportation workers, customers and general consumers.
- (4) We strive to continuously improve the safety and environment not only by strictly complying with relevant legislation and regulations but also by self-management.

Responsible Care (RC) Activity Promotion System

We set up the safety and environment philosophy, basic and action policies, based on which we promote our corporate activities related to quality, safety and the environment. Such issues are discussed and decided by the RC Promotion Conference, which is the top decision-making body and is chaired by the president.

Moreover, we regularly hold environmental preservation meetings, safety and health meetings and quality

RC Promotion System Diagram

assurance/product liability meetings chaired by the quality, safety and environment personnel and joined by the production branch general managers and relevant department managers. In these meetings, corporate targets, action plans and results are discussed to promote the RC activities. Under each of these meetings is a committee to make, implement and evaluate specific action plans for continuous improvements.



1. EMS: Environmental Management System

2. SHMS: Safety and Health Management System

3. QMS: Quality Management System

Management Systems

The Company promotes the comprehensive safety management of chemical substances based on the RC Code, which consists of the seven management systems stipulated based on Japan Chemical Industry Association (JCIA) policies: environmental conservation, safety and disaster prevention,

Observation of Environmental Laws and Regulations

Environmental risk management is an important measure to minimize environmental risks and/or consequent damages caused by risks. We comply with environmental-related legislation and regulations and agreements with local municipal governments, based on the Declaration of Action by Board Members and Employees. All our production sites in occupational safety and health, logistics safety, chemical product/product safety, dialogue with society and management system. In addition, the Company is working on improvements in environmental conservation and quality, using environmental ISO and quality ISO standards as tools.

Japan are regularly checked for environmental compliance in accordance with the ISO 14001–based environmental management system. Up-to-date information on legislation is checked and understood on a timely basis and disseminated internally to ensure compliance. Recently, education programs using an e-learning system have started.

Environment-Related Complaints

The Company received no complaints related to the environment in the fiscal year ended March 31, 2018. We will continue to strive to ensure safety in our operations while working to earn the understanding of those living nearby our plants and other company locations.

Environment Accounting

In the fiscal year ended March 31, 2018, the DKS Group's investment in environmental-related systems was spent mainly in the field of pollution prevention. Resource circulation costs accounted for a relatively strong ratio of costs tied to preservation of the environment. The economic benefits therein include profits on the actual sales of valuable resources and the amount of cost savings and are not based on estimated economic benefits.

Category	Main activities	Investment (Millions of yen)	Costs (Millions of yen)
O t ith in	Air/water/other pollution prevention	34.2	145.6
Costs within the plant premises	Global environment preservation, energy saving	4.6	71.5
···· - - ··· · - · · · · · ·	Resource recycling, resource saving, waste treatment/disposal	0.4	454.5
Upstream/downstream cost	Lowering environmental impact in containers/packaging	0.0	0.1
Administrative cost	ISO acquisition/completing surveillance audits, greening branch premises	7.1	36.1
R&D cost	Environmentally responsive R&D	0.0	452.5
Social activity cost	Providing support grants for environmental protection to environmental preservation groups or local communities	0.3	1.6
Environmental damage cost		0.0	0.0
Total		46.6	1,161.9

Investments and Costs of Environmental Protection Activities

• Economic Effects Generated by Environmental Protection Measures

Category	Main activities	Cost (Millions of yen)
Profit on sale of valuable resources	Profit on sale of metal scrap, waste oil and waste alkali, etc.	6.2
Amount of cost savings through energy saving	Amount of cost savings in electric power and fuels	0.0
Amount of cost savings through resource saving	Amount of cost savings through reduction of water use/waste	1.3
Total		7.5

• FY 2017 Activity Targets and Results, FY 2018 Activity Targets

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

	Evaluation A. Significant result b. Result in the with the target C. Target remains unachieved					
Target parameter	Management items	FY 2017 activity targets	FY 2017 results	Evaluation	Refer to page	FY 2018 activity targets
Promotion of energy saving	Energy consumption per unit	1% improvement compared with FY 2016	1.4% improvement compared with FY 2016	В	P. 40	1% improvement compared with FY 2017
Reduction of GHG* emissions	CO ₂ ¹	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019	24.6% reduction in FY 2017 compared with FY 2005	С	P. 40	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019
Reduction of industrial waste	Waste generation per unit	1% improvement in the fiscal year rate of nonconsolidated DKS ³	15.2% increase compared with FY 2016	С	P. 41	1% fiscal year rate improvement in non-consolidated DKS
	Final disposal rate ²	3.5% or less in FY 2019	5.5%	С		3.5% or less in FY 2019
	SOx emissions		12.9% increase compared with FY 2016	С		
Reduction of	NOx emissions	Reduced emissions of environmental pollutants	17.9% increase compared with FY 2016	С	P. 41	Reduced emissions of environmental pollutants in the air
environmental impact substance	Dust emissions	in the air	4.1% increase compared with FY 2016	С		
emissions	Water discharge	Reduced emissions of	13.2% increase compared with FY 2016	С		Reduced emissions of environmental pollutants in water
	COD emissions	environmental pollutants in water	1.6% increase compared with FY 2016	С		
Proper management of chemical substances	PRTR Law-designated substances emissions	Reduced emissions of PRTR Law–designated substances	0.5% increase compared with FY 2016	С	P. 40	Reduced emissions of PRTR Law–designated substances
Promotion of green procurement		Promoting the green procurement ratio of office supplies	36.5%, decreased 8.7 percentage points compared with FY 2016	С	—	Improvement of the green procurement ratio of office supplies
Elimination of disasters/accidents		No occupational accidents (days away from work)	Zero cases occurred	В	Posted	No occupational accidents (days away from work)
		Eliminating severe accidents associated with production facilities	No accidents occurred	В	on our website	Elimination of severe accidents involving production facilities
Environmental ma	nagement system	Promotion of an environmental management system	Maintained	В	P. 38	Promotion of an environmental management system

 Derived from energy in the production and administrative sectors
 The ratio of the final disposal amount to the generated waste amount
 We have decided not to set numerical targets for the Group until the method of recycling sludge newly generated from the wastewater treatment plant is established at a subsidiary company.

*GHG: Greenhouse gas

Important Issue 4 Consideration for the Environment

Global Warming Prevention (Energy Saving)

In the fiscal year ended March 31, 2018, energy consumption in the DKS Group amounted to 26,100 kl, a 3.4% increase compared with the previous fiscal year, however, the energy consumption per unit improved 1.4%, which means that we were able to achieve our fiscal year targets. While there was an increase in energy consumption due to the operation of new facilities, production increased 4.7%. We recorded

53,900 tons of carbon dioxide emissions in the fiscal year ended March 31, 2018, a 2.7% increase compared with the previous fiscal year, but a 24.6% reduction compared with the fiscal year ended March 31, 2006, meaning that the second year of the five-year target was not reached. We will continue to work to improve the efficiency of our energy use toward the achievement of our five-year targets.

Targets and Performance in FY 2017

Evaluation	A: Significant result	B: Result in line with the target	C: Target remains unachieved
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Target parameter	Management items	Activity targets	Performance in FY 2017	Evaluation
Promotion of energy saving	per unit	1% Improvement compared with Fr 2016	1.4% improvement compared with FY 2016	
Reduction of GHG* emissions	CO ₂	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019	24.6% reduction compared with FY 2005	С

*GHG: Greenhouse gas

Changes in Energy Consumption (Yokkaichi, Ohgata, Shiga, administrative sectors, domestic subsidiaries)



Notes: 1. Index of energy consumption per unit [2005 = 100] 2. Domestic subsidiaries include Yokkaichi Chemical, Kyoto Elex and Dai-ichi Ceramo, and in 2017. Elexcel as well.

Proper Management of Chemical Substances

The DKS Group had a total of 65 notification substances under the PRTR Law in FY 2017. The total amount of emissions was 48.4 tons, which resulted in a 0.2-ton (0.5%) increase compared with the previous year. The breakdown was 47.8 tons to air, 0.55 tons to water and none to land.

In FY 2017, the amount of waste transfer recorded was 269.0 tons, a

Changes in CO₂ Emissions

(Yokkaichi, Ohgata, Shiga, administrative sectors, domestic subsidiaries, derived from non-energy)



Note: Carbon dioxide emissions in administrative sectors include fuels for Company cars.

15.7-ton (5.5%) reduction compared with the previous fiscal year due to the use of recycled solvents and changes in the variety configuration. We will advance improvements in production processes and the introduction of recovery equipment, while continuing to make efforts to reduce the emissions/discharge of PRTR substances into the environment.

Targets and Performance in FY 2017 Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target parameter	Management items	Activity targets	Performance in FY 2017	Evaluation
Proper management of chemical substances	PRTR Law–designated substances	Emission reduction of PRTR Law-designated substances	0.5% increase compared with FY 2016	С

Changes in Emissions of PRTR Law-Designated Substances (DKS, Yokkaichi Chemical)



Notes: 1. The numerical values show the total amount for DKS and Yokkaichi Chemical 2. For the emission amount of notification substances under the PRTR Law in FY 2017 (among all notification coverage substances, those of which the emission or transfer amount was 0.01 tons or more), please visit our website. https://www.dks-web.co.jp/english/ir/report/index.html

Reducing Emissions of Environmental Impact Substances

Air Pollution Prevention

Compared with the previous fiscal year, the DKS Group's air-pollutant emissions in FY 2017 showed a 12.9%, 17.9% and 4.1% increase in SOx, NOx and dust emissions, respectively.

We will move ahead with facility improvements and studies of operational methods with the aim of making further energy-efficiency enhancements.

Targets and Performance in FY 2017

Water Pollution Prevention

In FY 2017, the DKS Group recorded 4,424,000 cubic meters in the amount of water discharge, a 13.2% increase compared with the previous year, and 26.3 tons of COD emissions, a year-on-year increase of 1.6%. We will continue to make efforts to reduce the water discharge and COD emission amounts by, for example, conducting reviews of our production processes and optimizing the operation methods at our effluent treatment facilities.

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Changes in Water Discharge and COD Emission Amounts

3,877 3,908 25,9

18 9

2015

2016

Water discharge 💶 COD emissions 🔳

4,424

2017

26.3

(Yokkaichi, Ohgata, Shiga, Yokkaichi Chemical)

3,541

15.3

2014

237

2013

2992

Target parameter	Management items	Activity targets	Performance in FY 2017	Evaluation
	SOx emissions		12.9% increase compared with FY 2016	С
Reduction of environmental impact substance emissions	NOx emissions	Emission/discharge reduction of environmental pollutants in the air	17.9% increase compared with FY 2016	С
	Dust emissions		4.1% increase compared with FY 2016	С
	Water discharge	Emission/discharge reduction of	13.2% increase compared with FY 2016	С
	COD emissions	environmental pollutants in water	1.6% increase compared with FY 2016	С

(1,000 m³)

Water Discharge

4,000 -

3,000

2.000 -

1.000 -

0

Changes in SOx, NOx and Dust Emissions (Yokkaichi, Ohgata, Shiga)





Note: Yokkaichi Chemical possesses no facilities that generate SOx, NOx or dust.

Waste Reduction

10,000 -

5,000 -

Kyoto Elex.

2013

2014

The amount of waste generated by the DKS Group in FY 2017 amounted to 20,770 tons, an increase of 3,406 tons compared with the previous fiscal year. The waste generation per unit result was 15.2% worse (an increase) than the previous fiscal year, and thus we were unable to achieve our target of a 1% improvement (decrease) in the annual rate. The recycling rate was 91.8%, which marked a 0.2-percentage-point improvement (increase) compared with the previous fiscal year. The final disposal

amount was 1,145 tons, representing 122 tons year-on-year increase. One contributory factor was that the sludge generated at the new facility was not recycled and that final disposal was fully carried out. For that reason, the final disposal rate was 5.5%, a deterioration (increase) of 0.4 percentage point compared with the previous fiscal year. In the year ahead, we will move ahead with a review of our sludge recycling and work to reduce the final disposal amount.

Targets and Performance in FY 2017

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target parameter Management items		Activity targets	Performance in FY 2017	Evaluation
Reduction of waste	Waste generation per unit	1% improvement in the fiscal year rate of non-consolidated DKS	15.2% increase compared with FY 2016	С
Reduction of waste Final disposal r		3.5% or less in FY 2019	5.5%	С

40

20

(FY)

2017

External





2015

Note: Domestic subsidiaries include Yokkaichi Chemical and

2016

• Changes in Final Disposal Amount and Final Disposal Rate (Yokkaichi, Ohgata, Shiga, Kyoto, Yokkaichi Chemical)



About the DKS Group

(t)

30 _

25

20

15

- 10

0

- 5

(FY)

Emissions

COD

- 35

Note: The ratio of the final disposal amount to the generated waste amount

Important Issue 5 Responsibility as a Global Company

Corporate Governance

Basic Concept

We are operating the business based on our Company Credo "contributing to the nation and society through industry" along with our three Company Mottoes— "Quality First," "Cost Reduction" and "R&D Efforts," which were the founders' spirit.

To aim for the establishment of a management base that can gain and maintain the trust of society, as well as to conduct transparent and fair corporate activities that are rooted in corporate social responsibility (CSR), we pursue higher governance as management policy and position it as one of our most important tasks. Specifically, we established a basic policy for the internal control system in 2006 and keep revising it.

Through these practices, we will strengthen our management base so that we can earn high trust from all stakeholders, including our customers and society. We also believe it is important to conduct corporate activities with transparency and fairness rooted in CSR.

To continuously enhance corporate value, we will establish a management base that can earn the trust of society. In addition, we have established and are working to strengthen a corporate management system and other corporate governance systems that support our corporate activities.

Constructive Dialogue with Shareholders and Investors

As a publicly traded company, DKS puts a priority on our responsibility to our stakeholders, including our shareholders. We are also focused on developing our business in a way that contributes to the sustainable development of society, as outlined in the SDGs. With this in mind, we have been actively engaged in IR activities since 2015 and have pursued constructive dialogue with shareholders and investors with the goal of improving corporate value over the medium to long term.

We are committed to improving transparency, including through direct discussions between management and analysts and institutional investors, and we believe the assessments and views of shareholders and market observers being reflected in the Company's management can contribute to enhanced

Status of Response to the CG Code

Regarding the status of our compliance with the Corporate Governance Code, which covers the code of conduct to which publicly listed companies should adhere, we are completely in compliance with the exception of the following four principles.

► Each Corporate Code of Conduct Principle with which DKS Is Not in Compliance and Reason for Non-Compliance

[Supplementary Principle 1-2-4]

On the basis of our shareholder composition and the shareholding ratio of overseas investors, we have decided that it is not necessary for us to use the electronic exercise of voting rights or provide an English translation of the Notice of Convocation at this time.

[Principle 1-4 Cross Shareholdings]

We conduct the verification of cross-shareholdings from a mediumto long-term perspective, comprehensively consider the purpose of ownership, rationality, investment amount, etc., and decide whether to make such investments. Regarding judgments on the exercise of those voting rights, we make comprehensive judgments on investment portfolio companies and, because we need to make governance.

We also believe it is important to promote dialogue with stakeholders other than shareholders through the issuance of integrated reports.

• Dialogue-Based Activities in the Fiscal Year ended March 31, 2018

Results briefing	1
Small meetings for institutional investors and analysts	45
Of which, meetings with overseas investors	2
Briefings for individual investors	1

qualitative and comprehensive judgments in accordance with individual shareholdings, we have not established unified criteria.

[Supplementary Principle 4-1-3]

The succession planning for the CEO and other top executives remains a most important matter for company continuity, and it is important to carefully judge evident and potential management ability. We therefore judge that it is appropriate for our Company to make it a matter solely for the chief executive officer, who is familiar with the inner workings of the Company.

[Supplementary Principle 4-11-3]

As a result of our efforts to analyze and evaluate the effectiveness of the Board of Directors as a whole, with regard to the effectiveness of the Board of Directors, including the appropriateness of the number of Board of Directors' meetings, the matters to be discussed, content, etc., by the directors, including outside directors, and audit & supervisory board members, we have been credited for efforts that are generally thought adequate and judge that the effectiveness of the entire board of directors is being maintained. As providing a summary of these analyses and evaluation results would concern internal confidentiality, we will not disclose their current status.

► Approach to Executive Remuneration

Director remuneration consists of (1) basic remuneration, (2) performance-linked remuneration to provide incentives and (3) stock-linked compensation to accentuate the sharing of value with shareholders. However, given their involvement in decisions with regard to business execution, remuneration for outside directors consists of (1) basic remuneration and (3) stock-linked compensation.

(1) Basic Remuneration

With regard to basic remuneration, we set the amount based on the scope of operations for which each director is responsible and his or her position and pay that amount as fixed monthly remuneration.

(2) Performance-Linked Remuneration

With regard to performance-linked remuneration, performance evaluations of the Company as a whole in the previous fiscal year are made once a year, and performance evaluations of the division of which each director is in charge are made twice a year; amounts based on these results are added or deducted; and the total amount is decided within a certain range.

(3) Stock-Linked Compensation

Having introduced restricted stock-linked compensation based on the scope of operations for which each director is responsible and his or her position, we set specific allocations for the monetary compensation that provides a bonus for the granting of shares with restriction on transfer.

Of the above, as determined by resolution of the 154th Ordinary General Meeting of Shareholders held on June 26, 2018, (1) basic remuneration and (2) performance-linked remuneration are set to a maximum amount of ¥30 million per month (equating to ¥360 million per annum, of which the portion for outside directors shall be ¥3 million or less per month, and which does not include the wage salaries of individuals serving concurrently as employees and executives). As determined by resolution of the 153rd Ordinary General Meeting of Shareholders held on June 27, 2017, (3) stock-linked compensation is set to a maximum of ¥100 million per annum (of which the portion for outside directors shall be ¥6 million or less per year, and which does not include the wage salaries of individuals serving concurrently as employees and executives). In addition, the total number of shares of common stock that the Company will thus issue or dispose of is to be up to a maximum of 500,000 shares per annum. Having been drafted by the representative directors, all the above is paid upon the passing of a resolution by the Board of Directors.

Audit & supervisory board member remuneration consists of normal monetary remuneration and monetary compensation that provides a bonus for the granting of shares with restriction on transfer.

- By resolution of the 141st Ordinary General Meeting of Shareholders held on June 29, 2005, we set the amount of the normal monetary compensation to a prescribed maximum monthly amount of ¥6 million (equating to ¥72 million per annum).
- By resolution of the 153rd Ordinary General Meeting of Shareholders held on June 27, 2017, we set specific allocations for the monetary compensation that provides a bonus for the granting of shares with restriction on transfer to a prescribed maximum annual amount of ¥20 million. In addition, the total number of shares of common stock to be thus issued or disposed of will be up to a maximum of 100,000 shares per annum.

In addition, we introduced a stock-linked compensation plan using stock with restriction on transfer from FY 2017. Besides executive directors, outside directors and audit & supervisory board members will also be eligible. Believing it important to attend to duties while remaining constantly aware of the interests of all shareholders, even if the content of the duties of officers responsible for the management of the Company differs according to law, this plan was presented and, after paying sufficient heed to the amount and allocation to be granted, passed by resolution of the 153rd Ordinary General Meeting of Shareholders.

	Total remuneration	Total by type o	f remuneration (N	fillions of yen)	Number of	
Executive position	(Millions of yen)	Basic remuneration	Stock options	Bonuses	executives	
Directors (excluding outside directors)	240	223	16	_	11	
Audit & supervisory board members (excluding outside audit & supervisory board members)	36	33	2	_	2	
Outside executives	23	21	1	_	7	

Executive Remuneration (Fiscal year ended March 2018)

Significant Portion of Salary Paid to Executive Directors Who Concurrently Serve as Employees (Fiscal year ended March 2018)

Total (Millions of yen)	Number of executives	Details
56	7	Salary (including bonuses) as employees

Important Issue 5 Responsibility as a Global Company

Compliance

Basic Concept

Since the Compliance Control Committee was established in 2004, our Company has been continuously engaged in the building and maintenance of our compliance system, as well as in activities to instill compliance practices in our employees. Recognizing that compliance activities are indispensable for continuing as a sound company, we will further strengthen our activities in the years to come.

Corporate Philosophy

The corporate philosophy around which the Company forms the basis of its actions is indicated in our Company credo, Company mottoes and Code of Corporate Ethics; these are outlined in our Declaration of Action by Board Members and Employees. For employees to always be able to confirm the corporate philosophy, we have created and distributed to all persons working in the Company a pocket-sized Corporate Philosophy Handbook.

Code of Corporate Ethics

To establish corporate ethics that contribute to putting the Company policies into practice, we established a six-item set of principles as the Code of Corporate Ethics and adhere to the word and spirit of all laws and regulations, as well as international rules. We also respect the culture and customs of each country and region where we conduct our business activities and declare that we will act with social common sense.

Declaration of Action by Board Members and Employees

Regarding the six-item set of principles established as the

Code of Corporate Ethics, we broke down the content as to what kind of behavior is actually required, clearly state the guidelines for the actions of executives and employees (including seconded and contract employees, as well as temporary employees) and declare that these guidelines will be implemented as a code of conduct.

企業倫理憲章

もって行動することをここに宣言する。

-5-

定を最大限実現することに



Code of Corporate Ethics

Activities to Implement and Instill Compliance Practices

We have set up internal and external whistleblower hotlines that enable employees to consult and report on violations of laws and regulations. We also provide compliance assessments for each department, information such as commentary on various laws through the Company intranet, e-learning programs in a guiz format for the promotion of compliance awareness and knowledge consolidation. Since 2010, we have declared October every year to be Corporate Ethics Month, and we are carrying out activities to establish and instill the theme. The theme for 2017 was information management II, and we reviewed the information management system and its operation at our Company and carried out activities to improve its management.

To ascertain the achievement and the degree by which these compliance activities have been instilled, we conduct a Compliance Awareness Survey once a year for all employees, internally announce the results and try to extract the issues from employees so that these are addressed in the following fiscal year.



Company Mottoes

努

"October is a Corporate Ethics Month

Company Credo

努める。

Risk Management (Risks and Responses to Them)

Basic Concept

Diverse and becoming more complex, the corporate risks surrounding the Company could result in increased adverse impacts on the Company itself, as well as on employees, shareholders, customers and local communities. We position risk management as an important management issue and are taking steps to prevent potential risks and prevent the spread of risks that have already manifested.

Risk Management

To address the risk surrounding the Company, we have established a Risk Management Control Committee that meets on a regular basis and is composed of representatives of each department, with the director in charge serving as the chairperson. The Committee is charged with managing risk, establishing and managing a plan, reviewing activity plans, assessing risk, formulating countermeasures and responses, and confirming implementation.

In Japan and overseas, the Company and its subsidiaries are working to operate and maintain crisis management systems on a daily basis so that we can obtain risk crisis information as soon as possible, ascertain the situation and take appropriate measures. To deal with potential and/or evident risks, we have taken several steps, including establishing and maintaining Risk Management Procedures, Product Liability (PL) Prevention and Management Procedures and Information Security Rules. Major activities implemented in the fiscal year ended March 31, 2018, included measures aimed at the extraction of risks in each department and fostering continuous improvement, as well as measures to prevent information leaks and alerts issued through groupware calling attention to such leaks. We also reviewed the manual on risk management responses for employees who are on overseas business trips as well as the Business Continuity Plan (BCP) covering earthquake countermeasures.

We have set new compliance standards, noting that events such as "product quality non-conformity at the design or development stage," "product quality non-conformity in the manufacturing process" or "quality issues affecting compliance, including in regard to laws and regulations" are "serious non-conformity issues" that could affect either our customers' business or our own.

Business Continuity Plan (BCP) and Earthquake Countermeasures

BCP is an abbreviation for Business Continuity Plan, which allows a company to maintain critical operations when it is affected by an unforeseen natural disaster such as an earthquake. Even if business activities are unavoidably interrupted, the BCP focuses on restarting important functions within the recovery time objective and minimizing the risks involved in interrupted operations. We have created a BCP for a large-scale earthquake and the outbreak of a highly virulent H1N1-type influenza. We also have created a BCP for logistics operations in the event of an earthquake or torrential rain. We are regularly reviewing and updating our BCPs.

Disaster Preparedness

In the event of a crisis, our Risk Management Manual establishes management levels in line with the crisis, with the person in charge in line with those risk management levels tasked with risk management. Noting the increased occurrence of abnormal

 Risk Management Level I
 Understanding risk possibilities under normal operation

 Risk Management Level I
 Risks to be coped with within plants, branches, offices and subsidiaries

 Risk Management Level II
 Risks to be coped with within divisions (including subsidiaries)

 Risk Management Level IV
 Risks to be coped with Companywide

 Risk Management Level V
 Unexpected risks

weather conditions, such as torrential rain, as well as earthquakes, our annual preparation for natural disasters includes training on understanding and reporting the safety situations of employees and damage conditions, as well as ways to improve crisis awareness. In the fiscal year ended March 31, 2018, too, we confirmed safety in each department using a safety confirmation system and confirmed safety conditions using mobile telephones and the Companywide computer system. We will continue training in the fiscal year ending March 31, 2019, to make sure all employees are registered in the safety confirmation system and to reaffirm the reporting procedure through the responsible parties.

To better respond to the diversification of risks in the business environment in recent years, we will continue to promote initiatives to improve business continuation and deploy them in our Business Continuity Management (BCM)*.

* Business Continuity Management (BCM) refers to management activities designed to enhance a company's ability to continue business. These activities include the formulation, maintenance and upgrading of BCPs, as well as the implementation, testing and improvement of education and training to entrench company initiatives, the implementation of proactive measures and the securing of the resources necessary to ensure business continuity.

Information Security

Now forming an important foundation of the economy and in society, the role of IT controls is increasingly significant. Having established an information security policy, measure standards and implementation procedures, we are building a system to ensure information security against information system risks, such as cyber terrorism and information leaks. Recognizing the importance of the internal control system, we conduct internal audit by the Internal Audit Department as well as outside audit by the independent auditor.

Management (as of June 26, 2018)

Board of Directors



SAKAMOTO Takashi

Chairman CEO

- Number of shares held: 131,000 shares
- Career summary April 1970 Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.) Februari 1971 Manager of Madrid Branch of Fuji Bank May 1974 Managing Director of Fuji Asset Management Co., Ltd. June 2001 Joined DKS Co. Ltd.
- June
- 2001
 Director

 2001
 Director

 2004
 Director

 2005
 Director

 2007
 Senior Managing Director

 2007
 Senior Managing Director

 2013
 Chairman and Executive Director (current)

 2013
 Chairman and Executive Director (current)

 2015
 Concurrently President (current)
 April
- June
- June June June June



URAYAMA Isamu

Managing Director Executive General Manager in charge of Financial Headquarters

- Number of shares held: 58,000 shares

- I Career summary April 1975 Joined DKS Co. Ltd. October 2007 General Manager of Financial Division and Assistant to Auditor May 2008 General Manager of Accounting Department and Assistant to Auditor June 2008 Executive General Manager in charge of Financial Headquarters [current] June 2009 Director June 2016 Managing Director [current]



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KITADA Akira Director

Executive General Manager in charge of Personnel & General Affairs Headquarters President of Osaka Branch

Number of shares held: 19 000 shares Career su

- April 1989 Joined DKS Co. Ltd. April 1989 Joined DKS Co. Ltd. April 2009 General Manager of Functional Chemicals R&D Department, Functional Chemicals Business Division October 2010 General Manager of Planning Office, Functional Chemicals Business Division April 2013 Executive General Manager of Functional Chemicals Business Division, Business Headquarters June 2015 Director [current] April 2016 Executive General Manager in charge of Production Control Headquarters and in charge of Ervionment, Safety & Quality Assurance Department April 2018 Executive General Manager in charge of Personnel & General Affairs Headquarters [current] and President of Osaka Branch [current]

YAMAJI Naoki Director

Executive General Manager in charge of Corporate Planning Headquarters

- Number of shares held: 13,000 shares
 Career summary
- Career summary April 1991 Joined DKS Co. Ltd. April 2013 General Manager in charge of Planning Department, Yokkaichi Reorganization Division, Production Control

- Yokkaichi Reorganization Division, Production Conti Headquarters April 2014 General Manager of COO Office April 2015 Executive General Manager of Plastic Materials Business Division, Business Headquarters April 2016 Executive General Manager in charge of Corporate Planning Headquarters [current] and CoO Office June 2017 Director [current] and in charge of Personnel & General Affairs Headquarters

MISAWA Hideto Director

Executive General Manager of Domestic Subsidiaries Division (Business Headquarters)

Number of shares held: 5,000 shares

April 1981 Joined Matsushita Electric Works, Ltd. [current Phansonic Electric Works Co., Ltd.] Deember 2001 General Manager of Product Development Department, Electronic Device Materials Business Division Noember 2002 General Manager of Market Development Department, Electronic Device Materials Business Division March 2004 General Manager of Indrivet Development Department, Electronic R&D Center, Electronic Materials Business Division March 2004 General Manager of Indrivensia Development Department, General Manager of Uncui Materials Business Division April 2007 General Manager of Uncui Materials Business Division April 2008 Director of Electronic R&D Center October 2015 Director of New Business Development Center October 2017 Joined DKS Co. Ltd. General Manager in Charge of Domestic Subsidiaries Duvision, Business Headquarters (current) June 2018 Director Icurrent]



AKASE Yoshinobu

Representative Senior Managing Director Executive General Manager in charge of **Business Headquarters**

Number of shares	held:	47,000	shares
Caroor summary			

- Number of shares held: 4/,000 shares Career summary April 1982 Joined DKS Co. Ltd. April 2006 General Manager of Polyurethane & Construction Materials East Sales Department, East Sales Headquarters Beneral Manager of Polsure Materials Sales Department, Plastic Materials Business Division Executive General Manager in charge of Procurement & Logistics Headquarters June 2010 Director and Executive General Manager in charge of Personnel & General Manager in charge of Corporate Planning Headquarters and Personnel & General Alfairs Headquarters April 2013 Executive General Manager in charge of Corporate Planning Headquarters and Personnel & General Alfairs Headquarters April 2014 Managing Director April 2017 Representative Senior Managing Director (current) Executive General Manager in dharge of Business Headquarters (urrent) Executive General Manager in dharge of Business Headquarters (urrent)







April 2015 Startes Hetz: 44,000 Shartes Career summary April 1982 Joined DKS Co. Ltd. April 2010 General Manager of Plastic Materials R&D Department, Plastic Materials Business Division October 2005 General Manager of Synthesis R&D Supervision Department, Technological Development Headquarters April 2008 Deputy General Manager of Plastic Additive Materials R&D Department, Plastic Materials Business Division April 2009 General Manager of Plastic Additive Materials R&D Department, Plastic Materials Business Division April 2009 General Manager of Plastic Materials Laboratory, Plastic Materials Business Division June 2011 Execute General Manager in charge of R&D Headquarters [current] June 2017 Managing Director [current]

OKAMOTO Osami

Executive General Manager of Plastic Materials Business Division, Business Headquarters and in charge of Tokyo Headquarters Number of shares held: 26,000 shares

- April 1989 Joined DKS Co. Ltd. April 2006 General Manager of Sales Department, Plastic Additive Materials Business Division May 2007 General Manager of East Sales Department, Surfactants Business Division General Manager of Paning Office, Functional Chemicals Business Division Ctober 2010 Director of Vokkaichi Chemical Co., Ltd. April 2018 General Manager of Iskats (Reorganization Department, Froduction Control Headquarters April 2016 General Manager in charge of Management Planning Office, Corporate Planning Headquarters April 2016 General Manager of Plastic Materials Business Division, Business Headquarters (Lurrent) Dencurrently in charge of Tokyo Headquarters (current) June 2017 Director (current)

KAWAMURA Ichiji Director

Executive General Manager in charge of Production Control Headquarters

mber of shares held: 5,000 shares eer summary

- Number of shares held: 5,000 shares

 Career summary

 April 1985
 Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)

 August 1995
 Senior Assistant Branch Director of London Branch

 Namber 2001
 General Manager of Yokohama Branch

 April 2002
 Assistant Branch Manager, Yokohama Branch

 May
 2004
 Assistant Branch Manager, Seoul Branch of Mizuho Corporate Bank, Ltd.)

 July
 2000
 Benyt General Manager, Istemational Corporate Sales Department 6

 April
 2011
 General Manager, International Corporate Sales Department 5

 April
 2015
 Temporary transfer to DKS Co. Ltd.

 April
 2016
 Joined DKS Co. Ltd.

 Deputy General Manager in charge of Personnel & General Manager in







Board of Directors



AOKI Sunao Director (outside)

Number of shares held: 1,000 shares Career summary

- April 1972 Joined Mitsubishi Heavy Industries, Ltd. June 2000 Director of Takasago Laboratory, Technology Department

- June
 2000
 Director of Takasago Laboratory, Technology Department

 June
 2003
 Director

 January
 2005
 General Manager, Technology Department

 June
 2005
 Representative Executive Officer

 Desenber
 2006
 Representative Executive Officer

 April
 2006
 Representative Managing Executive Officer

 June
 2017
 Executive Vice President and Executive Officer

 June
 2017
 Executive Vice President and Executive Officer

 June
 2014
 Cel Chiel Oriector of Misubishi Research Institute, Inc.

 April
 2016
 Special Advisor of Misubishi Heavy Industries, Ltd.

 Lourrent]
 June
 2014
 Director of DKS Co. Ltd. [current]



TAKASHIMA Masahiro

Director (outside)

= Marine b		shares held: —
Caree		
April	1985	Joined Daiichi Mutual Life Insurance Company
April	2005	President of Ueno General Branch
	2007	General Manager of Osaka Business Promotions Department.
April	2010	General Manager of Osaka Business Promotions Department, Daiichi Life Insurance Company, Limited
April	2011	General Manager of Metropolitan Area Business Promotions Department
April	2013	Executive Officer and General Manager of Market Supervision Department
April	2015	Managing Executive Officer and General Manager of East Japan Sales Headquarters
Anril	2017	Concurrently Chief of Hokkaido Sales Bureau Managing Executive Officer and Chief of Kansai

- April 2017 Managing Executive Unicer and Chiel General Bureau (current) June 2017 Director of DKS Co. Ltd. Audit & Supervisory Board (current)



Audit & Supervisory Board

TANIGUCHI Tsutomu Director (outside)

- Number of shares held: Career summary
 October 1978 Labor Standard Inspector of Labor Ministry
 April 2002 Chief of the Sonobe Labor Standards Inspection Office, Kyoto Labor Bureau, Ministry of Health, Labour and Welfare (former Labor Department)
 April 2004 Senior Officer for Personel Planning, General Affairs Division April 2006 Chief of the Kyoto-Miniari Labor Standards Inspection Office April 2008 Director of the General Affairs Division April 2010 Chief of the Kyoto-Ami Labor Standards Inspection Office June 2017 Registered as Labor and Social Security Attorney (Kyoto Labor and Social Security Attorney's Association Ochief of Tsutomu Taniguchi Labor and Social Security Attorney's Office (current)

NISHIZAKI Shinichi

Number of shares held: 24,000 shares
 Career summary
 April 1982 Joined DKS Co. Ltd.
 July 2004 General Manager of Financial Department, General Affairs Financial Headquarters
 October 2007 Executive General Manager of Secretary's Office
 Noember 2008 Executive General Manager of Financial Lepartment, Financial Headquarters and Auditor
 April 2010 General Manager of Financial Department, Financial Headquarters and Auditor
 April 2013 Assistant to President
 June 2013 Audit & Supervisory Board Member [current]

Audit & Supervisory Board Member

Five Operating Segments

About the DKS Group

FUJIOKA Toshinori

Audit & Supervisory Board Member

- Number of shares held: 52,000 shares
 Career summary
 April 1980 Joined DKS Co. Ltd.
 Otchee 2000 General Manager in charge of General Business
 Promotion Uffice, Procurement & Logists Headquarters
 Otchee 2005 General Manager of East Supervision Headquarters
 Otchee 2005 General Manager of East Supervision Headquarters
 Durb 2007 Executive General Manager in charge of
 Persoinent an General Mafairs Headquarters
 Orresident and Representative Director of Kyoto
 Elex Co., Ltd.
 June 2011 Executive General Manager in charge of
 President of Daska Branch Office
 June 2014 Director

 - June 2014 April 2016 2014 Director
 2016 Executive General Manager of RHEOCRYSTA Business Division (Business Headquarters)
 2018 Assistant to President
 2018 Audit & Supervisory Board Member (current)
 - April June

TANAKA Haruo

Audit & Supervisory Board Member (outside)

Number of shares held: -

- Career summary April 1978 Joined The Bank of Kyoto, Ltd. February 2005 General Manager of Private Banking
- June 2006 General Manager of Public Affairs Division June 2010 Executive Officer and General Manager of Public Affairs Division
- June 2011 Auditor June 2011 Full-time Auditor June 2015 President and Representative Director of Kyogin Card Service Co., Ltd. [current] June 2016 Audit & Supervisory Board Member [current]

IDE Hidehiko

Audit & Supervisory Board Member (outside)

- Number of shares held: 1,000 shares

- Number of shares held: 1,000 shares
 Career summary
 April 1970 Joined The Fuji Bank, Limited
 May 1995 Manager of Chicago Branch
 May 1997 Manager of London Branch
 Up 1999 Deputy Director General of Headquarters
 September 1999 Managing Director of Fuji Asset
 Manager Co., Ltd.
 October 2005 Full-time Management Co., Ltd.
 June 2007 Auditor of Ulvac Materials, Co., Ltd.
 June 2008 Audit & Supervisory Board Member of DKS Co. Ltd. [current]











Fundamental Knowledge of Surfactants

Generally, an "interface" refers to the border area between two materials of different states of solid, liquid or gas. A *surface active* agent, or surfactant, is a term for a chemical that exhibits functions and improves the performance of these interfaces.

Basic Structure of Surfactants

Surfactants have a unique chemical structure that has both hydrophilic and hydrophobic properties. Using this structure, surfactants can achieve a variety of effects such





Surfactant Types

Surfactants have four main structural types based on the functions they are designed to achieve. Of these four types, three are ionic surfactants that transform into electrolytic dissociation ions (atoms or groups of atoms bearing an electrical charge) when dissolved in water, and the remaining

as emulsification, dispersion, foaming and adsorption by weakening surface tension or forming molecular aggregates or micelle (spheres).



type is nonionic surfactants, which do not form ions. The three ionic surfactants are further subdivided based on the type of ion they form in water: anionic (or negative ion) surfactants, cationic (or positive ion) surfactants and amphoteric (containing both positive and negative ions) surfactants.

Types of surfactants	Characteristics	Main applications		
Anionic surfactants	 Superb emulsifying and dispersing Good foaming Not susceptible to temperature 	Laundry detergent Shower gel	Shampoo	
Cationic surfactants	 Adsorbed by textiles, etc. Antistatic effects Sterilizing effect 	Hair conditioner Disinfectant	Fabric softener	
Amphoteric surfactants	 Non-irritative to the skin Superb solubility in water Synergetic effects with other surfactants 		Dishwashing liquid	
Nonionic surfactants	 Balance of hydrophilic and hydrophobic properties easily adjustable Superb emulsifying and solubilizing properties Low foaming Susceptible to temperature 	Laundry detergent Dispersant	Emulsifier/solubilizer Metal processing oil	

3

Main Actions and Applications

Function	Actions and effects	Applications
Emulsifying, dispersing Mixes incompatible substances	Mixes water and oil and makes an emulsion. Makes a uniform dispersion with fine particles floating on the water surface.	Ice cream, margarine, paints, inks
Moistening, permeating Makes wetting and permeation easier	Spreads agrochemicals thin and uniform on the leaf surfaces. Evenly disperses dyestuff and finishing agents on textiles and leathers.	Pesticide spraying, permeation of dyestuff and finishing agents on textiles Foaming, defoaming
Making or removing foam	Takes in air bubbles in water and stabilizes. Prevents foaming.	Foam concrete, light gypsum boards
Cleaning Removes dirt	Removes dirt by moistening the surface of textiles and dirt, taking the dirt off the textiles by penetrating in between them, and emulsifying/dispersing the dirt.	Household detergents, bath soaps, machinery, metals
Softening, smoothing Softens and smooths	Improves the smoothness of yarns in the spinning and/or knitting process and makes soft and smooth-textured textiles.	Textile finishing agents, metal processing oils
Antistatic Prevents static electricity	Prevents static electricity generation by making the surfaces smooth. Makes static electricity easier to escape by forming a water-absorptive coating on the surface.	Antistatic and dustproofing treatment for synthetic fibers and plastic products
Rustproofing Prevents rust	Adheres to the metal surface and forms a coat to prevent oxygen (air) and water from contacting the metal and causing rust.	Metal surface treatment
Leveling, fixing Prevents uneven dying, enhances dye fastness	Makes the dyestuff gradually be absorbed by the textiles and brings about uniform dyeing.	Textile printing
Sterilizing	A positively charged surfactant is absorbed to negatively charged bacteria, destroys the cells and sterilizes.	Hand sanitizer

4 Environmental Impact of Surfactants

Domestic wastewater contains surfactants. Most such wastewater is collected and treated at public sewage treatment plants and released to the environment although some could be released directly to rivers/oceans or land. Because surfactants are biodegradable, even if released into the environment they eventually degrade to carbon dioxide and water by bacteria. To preserve the natural environment, products with high biodegradability are being developed and proactively used in Japan.

Glossary

Terminology	Description	
Antioxidant	An additive used to prevent oxidation and deterioration caused by exposure to oxygen in the air.	
Antistatic agent	A compound to prevent the electrification of synthetic fibers and plastics caused by static electricity, for which a surfactant is mainly used. It is applied to the surface of target materials by spraying and lets static electricity escape.	
BCP An abbreviation for Business Continuity Plan through which, in the event of a disaster or other crisi companies do not allow critical operations to go offline. Even if business activities are unavoidably interrupted, important functions will be restarted within the recovery time objective, and to minimiz involved in interrupted operations strategic preparations for continuing business are carried out in		
CELLOGEN DKS brand of Sodium Carboxymethyl Cellulose (CMC) products. They are a typical anionic wate polymer made from cellulose, widely used as a thickener, stabilizer, emulsion/dispersion stabil protective colloid and so on.		
Cellulose nanofibers	Very thin nano-sized fibers prepared by detangling cellulose, which makes up the cell walls of plants. The width of the fibers is about 10 nm (nano = a billionth). They are made from wood-derived pulp, and when used in plastics and rubbers, they enhance the strength of these materials while reducing thermal expansion/contraction.	
СМС	An abbreviation for Sodium Carboxymethyl Cellulose. *See CELLOGEN.	
CNF	An abbreviation for Cellulose Nanofibers. *See cellulose nanofibers.	
Cocoon unwinding agent	An agent to spin a silk yarn from cocoons.	
COD emissions COD is an abbreviation for Chemical Oxygen Demand, which refers to the chemical demand for oxygen The value indicates the oxygen volume needed for oxidizing underwater objects and is one of the majindicators used for water quality.		
Conductive paste	A paste used to fix a sample on a stage or be applied on a test piece to make it conductive. Some of these products use silver particles or carbon black as a filler dispersed in resin, or others use colloidal graphite dispersed in water.	
Cost per unit of energy	An indicator used to express energy efficiency. It indicates the total energy consumption (in forms such as electricity and heat) required to manufacture a certain volume or value of products. It is generally used to assess the progress of companies' energy conservation efforts. For example, if 1 billion kcal of energy is used to manufacture 100 million yen of value, the cost per unit of energy is 1 billion kcal / 100 million yen = 10 kcal / 1 yen. Accordingly, smaller values indicate high manufacturing efficiency, energy conservation and contributions to slowing global warming.	
DuPont model	Also called the DuPont System; a method to analyze return on equity (ROE) by breaking it down to three categories using the indices below. The name refers to its use by the chemical company DuPont for financial analysis. ROE (current net income / capital stock) = Financial leverage × Asset rotation ratio × Sales profit ratio	
Feed binder	An additive to raise the viscosity of feed for domestic animals and fish.	
Flame retardant	Depending on the usage environment, materials used in electric appliances, building materials and other household goods can cause a fire. To ensure our daily living stays safe, it is important to make these materials hardly flammable and minimize the release of smoke and other toxic substances. Flame retardant is a general term used to refer to the compounds used to achieve these goals.	
Green solvents	Green solvents are solvents with low environmental impact. Ionic liquids, for example, are non-volatile and non-flammable, which are different from the characteristics exhibited by general volatile organic solvents.	
IoT logistics	IoT is an abbreviation for Internet of Things. IoT logistics involves attaching a sensor or other device to items in storage or transit (packages) and enables acquisition of real-time location information over the Internet, with the goal of improving logistics efficiency.	
Lubricant	When processing powder, solid or granulated materials, lubricants are additives used to reduce the friction between both materials and processing machinery and the particles of the materials themselves. These compounds improve fluidity, releasability and processing efficiency.	
Materiality	A term that refers to how essential something is. Originally, it referred to the general rule of importance in the accounting field for items that could have major effects on financial affairs. Recently, important issues in CSR activities are also identified as "materiality," and more and more companies are using this approach of conducting CSR activities and reporting the results.	

Polymerizable surfactant	A surfactant used for emulsion polymerization (monomers are emulsified/dispersed in water where the emulsifier is dispersed and lets polymerization occur by a water-soluble catalyst).
Polyurethane	A general term for polymer compounds with urethane bonding, having high abrasion resistance, chemical resistance, solvent resistance and aging resistance. It can be used as a paint or an adhesive by dissolving in a solvent, or as fibers. Urethane foams obtained by aerating polyurethane are used for furniture and construction materials, as well as packing material and mattresses.
Polyurethane water dispersion	A liquid solution of polyurethane dispersed in water. *See polyurethane.
Precision detergents	A surfactant blend formulation used for cleaning precision parts of electric/electronic/precision machinery.
Radiation-curable monomers and oligomers	A general term for resins that harden in response to specific light wavelengths, such as ultraviolet light. Low molecular weight compounds used when creating polymers are called monomers. Molecules with a chemical structure not as large as polymers and created through the repetition of smaller numbers of polymerization are called oligomers.
Recycling ratio	The ratio of disused and waste materials that are recycled and reused to conserve resources and prevent environmental pollution.
Responsible Care (RC) activities	Voluntary control activities by the companies in the chemical industry that promote the safe handling of materials in every step of the process from manufacturing to distribution, consumption and disposal. First proposed by the Chemistry Industry Association of Canada in 1985. The Japan Responsible Care Council was founded in 1995.
SDGs	SDGs is an abbreviation for the Sustainable Development Goals, which are international targets adopted by world leaders at a summit held at the United Nations in September 2015. The 17 SDGs contain 169 targets for achievement by 2030.
SDS	An abbreviation for Safety Data Sheets. The same materials previously were called Material Safety Data Sheets (MSDS), however, since April 2012, all have been designated as SDS as used in the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
Sealant for electric insulation	A material to seal precision components without gaps to avoid exposure to the air.
Seed accelerator	An organization that assists entrepreneurs and companies immediately after their establishment to help assure their success. Support can come in the form of funds, personal connections, advice (mentoring) or the provision of office space.
Sericin	Sericin is a so-called hard protein created by silkworms in the production of silk. The protein itself is synthesized in the central silk gland of the silkworm. Fibers in the cocoon are created by covering two fibroins with three layers of sericin, with the protein component of the cocoon about 70% fibroin and about 30% sericin.
Sucrose fatty acid esters	Approved food additive in Japan since 1959. The high safety of sucrose fatty acid esters is recognized by international organizations (FAO/WHO). They are a nonionic surfactant with sucrose as the hydroxyl group and fatty acid from an edible oil as the lipophilic group, used in many food products as emulsifiers.
Unit emission of industrial waste	Unit consumption refers to the quantities of production factors (e.g., raw materials, power, labor force) necessary to produce a certain quantity of a product. In the same way, we measure the waste generated by the production of a unit quantity of a product as an indicator of the Company's contribution to conservation of the environment.
Urethane foam	A porous synthetic rubber material made from polyurethane. Used for applications such as thermal insulating material, sound absorption material and bedding.
VOC	An abbreviation for Volatile Organic Compounds. VOC is a general term for organic compounds that are volatile and exist in a gaseous form in the air, and the term encompasses a wide variety of compounds such as toluene, xylene and ethyl acetate.
Water-reactive (foaming) polyols	Products in our polyurethane materials business segment. POLYGROUT, the water stopping material for civil engineering, is a typical example.

Terminology

Description

Consolidated Financial Statements

Consolidated Balance Sheets

(Millions of yen)

69,046 **73,976**

Total liabilities and net assets

Assets	FY2016	FY2017	Liabilities	FY2016	FY2017
Current assets			Current liabilities		
Cash and deposits	9,379	11,523	Notes and accounts payable—trade	10,464	12,222
Notes and accounts receivable—trade	14,832	16,515	Short-term loans payable	6,001	6,197
Merchandise and finished goods	6,692	7,784	Lease obligations	299	313
Work in process	35	31	Income taxes payable	532	893
Raw materials and supplies	1,683	2,134	Provision for bonuses	603	649
Prepaid expenses	245	270		35	37
Deferred tax assets	339	344	Accrued business office taxes		
Other current assets	2,750	2,342	Accrued expenses	386	220
Allowance for doubtful accounts	(10)	(15)	Deferred tax liabilities	2	_
Total current assets	35,947	40,932	Other current liabilities	2,222	2,176
Non-current assets			Total current liabilities	20,547	22,712
Tangible fixed assets			Non-current liabilities		
Buildings and structures	24,525	24,905	Long-term loans payable	18,593	17,665
Accumulated depreciation	(13,170)	(13,563)	Lease obligations	819	575
Buildings and structures, net	11,355	11,341	Deferred tax liabilities	426	626
Machinery, equipment and vehicles	32,313	33,625	Net defined benefit liability	262	107
Accumulated depreciation	[26,667]	(27,497)	Asset retirement obligations	72	73
Machinery, equipment and vehicles, net	5,646	6,128	Other non-current liabilities	279	256
Tools, furniture and fixtures	3,573	3,659	Total non-current liabilities	20,454	19,303
Accumulated depreciation	(3,166)	(3,170)	Total liabilities	41,001	42,015
Tools, furniture and fixtures, net	407	489	Net assets	41,001	42,010
Land	9,358	8,933	Shareholders' equity		
Leased assets	1,570	1,542		8,895	8,895
Accumulated depreciation	(870)	(946)	Capital stock		
Leased assets, net	700	596	Capital surplus	7,218	7,223
Construction in progress	922	95	Retained earnings	11,300	14,043
Total tangible fixed assets	28,390	27,584	Treasury shares	(1,120)	(1,086)
Intangible assets	387	378	Total shareholders' equity	26,293	29,076
Investments and other assets	0.017	2 (72	Accumulated other comprehensive income		
Investment securities	3,217 23	3,672 420	Valuation difference on available-	145	531
Long-term loans receivable			for-sale securities	140	551
Long-term prepaid expenses Deferred tax assets	324 51	208 57	Deferred gains or losses on hedges	(2)	—
Net defined benefit assets	264	403	Foreign currency translation adjustment	206	271
	264 445	326	Remeasurements of defined	212	279
Other intangible fixed assets Allowance for doubtful accounts	(6)	(6)	benefit plans		211
Total investments and other assets	4,320	5,082	Total accumulated other	561	1,082
Total non-current assets	33,098	33,044	comprehensive income		.,
Total assets	69,046	73,976	Subscription rights to shares	3	_
	07,040	10,770	Non-controlling interests	1,186	1,801
			Total net assets	28,044	31,960

Consolidated Statements of Income

(Millions of yen)

	FY2016	FY2017
Net sales	52,254	56,955
Cost of sales	38,532	41,896
Gross profit	13,721	15,059
Selling, general and administrative expenses		,
Selling expenses	4,142	4,277
General and administrative expenses	5,634	5,728
Total selling, general and administrative expenses	9,777	10,006
Operating income	3,944	5,053
Non-operating income		
Interest income	6	8
Dividend income	54	52
Share of profit of entities accounted for using equity method	82	68
Foreign exchange gains	15	_
Rent income	14	26
Insurance income	15	6
Other non-operating income	72	76
Total non-operating income	261	238
Non-operating expenses	201	200
Interest expenses	274	242
Compensation-related expenses	47	185
Other non-operating expenses	110	138
Total non-operating expenses	432	566
Ordinary income	3,773	4,725
Extraordinary income	5,775	4,725
Gain on sales of land	_	1,098
Gain on sales of investment securities	55	1,070
Total extraordinary income	55	1,098
Extraordinary losses	55	1,070
Impairment loss	187	171
Loss on disposal of non-current assets	93	113
Loss on sales of buildings	73	29
Total extraordinary losses	281	314
Profit before income taxes	3,547	5,509
Income taxes—current	<u> </u>	<u> </u>
Income taxes—deferred	830 84	61
	915	
Total income taxes		1,496
Profit	2,632	4,012
Profit attributable to non-controlling interests		660
Profit attributable to owners of parent	2,489	3,351

Consolidated Statements of Comprehensive Income (Millions of yen)

		5
	FY2016	FY2017
Profit	2,632	4,012
Other comprehensive income		
Valuation difference on available-for-sale securities	306	386
Deferred gains or losses on hedges	6	2
Foreign currency translation adjustment	(69)	123
Remeasurements of defined benefit plans	17	62
Share of other comprehensive income of entities accounted for using equity method	(36)	5
Total other comprehensive income	224	580
Comprehensive income	2,857	4,593
Comprehensive income attributable to owners of parent	2,726	3,873
Comprehensive income attributable to non-controlling interests	131	720

Consolidated Financial Statements

Consolidated Statements of Cash Flows

(Millions of yen)

	FY2016	FY2017
Cash flows from operating activities		
Profit before income taxes	3,547	5,509
Depreciation	2,335	2,473
Increase (decrease) in allowance for doubtful accounts	3	5
Interest and dividend income	(61)	(61)
Interest expenses	274	242
Share of loss (profit) of entities accounted for using equity method	(82)	(68)
Impairment loss	187	171
Loss (gain) on disposal of tangible fixed assets	93	113
Loss (gain) on sales of tangible fixed assets	—	(1,068)
Loss (gain) on sales of investment securities	(55)	—
Decrease (increase) in notes and accounts receivable—trade	(1,614)	(1,645)
Decrease (increase) in inventories	409	(1,466)
Increase (decrease) in notes and accounts payable—trade	227	1,755
Increase (decrease) in net defined benefit liability	(246)	(188)
Other cash flows from operating activities	(311)	258
Subtotal	4,708	6,030
Interest and dividend income received	121	139
Interest expenses paid	(274)	(241)
Income taxes paid	(804)	(911)
Net cash provided by (used in) operating activities	3,750	5,017
Cash flows from investing activities		
Payments into time deposits	(82)	(116)
Proceeds from withdrawal of time deposits	—	83
Purchase of tangible fixed assets	(3,900)	(2,505)
Proceeds from sales of tangible fixed assets	27	1,822
Purchase of investment securities	(2)	(2)
Proceeds from sales of investment securities	441	-
Payments for loans receivable	—	(400)
Collection of short-term loans receivable	1	3
Proceeds from subsidy income	212	100
Other cash flows from investing activities	(33)	(114)
Net cash provided by (used in) investing activities	(3,336)	(1,130)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(3,190)	(55)
Proceeds from long-term loans payable	8,393	4,000
Repayments of long-term loans payable	(3,772)	(4,800)
Repayments of lease obligations	(346)	(299)
Purchase of treasury shares	(1,004)	(1)
Proceeds from disposal of treasury shares	21	7
Cash dividends paid	(526)	(606)
Dividends paid to non-controlling interests	(39)	(38)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	(10)	(62)
Net cash provided by (used in) financing activities	(477)	(1,858)
Effect of exchange rate change on cash and cash equivalents	(42)	78
Net increase (decrease) in cash and cash equivalents	(105)	2,106
Cash and cash equivalents at beginning of period	9,401	9,296
Cash and cash equivalents at end of period	9,296	11,402

Dialogue with Shareholders and Investors

Disclosing the necessary corporate information in a timely and appropriate manner, the Company attaches importance to the occasions for communicating with the wide range of people concerned.

While actively conducting dialogues with its many investors, the Company has been able to seize opportunities for dialogue involving stories about its creation of value.

Through the words of the Chairman himself, the Company arranges regular large and small meetings with investors. In addition, with regard to explaining financial performance and business scope, the personnel in charge conduct interviews and offer direct explanations as part of their everyday tasks. As this Report serves as a tool for sustainable and constructive dialogue, we are working to improve corporate value, including mutual understanding through active communication.

Ordinary General Meeting of Shareholders

On June 26, 2018, the Company held its 154th Ordinary General Meeting of Shareholders at the hall at the Company's corporate Headquarters building. The shareholders who attended that day numbered 107, including some who had traveled long distances to be there. After the conclusion of the general meeting, the Company held a management briefing session given by the Chairman and an informal gathering.

Using the valuable time to directly explain management's way of thinking and direction through mutual dialogue, the Company regards the general meeting as an important occasion not only as a venue at which to meet each other but also for the management team to earnestly obtain feedback directly from shareholders and for that feedback to be subsequently

reflected in management.

As the general meetings are held at the Company's Headquarters, our employees there turn out in force to welcome the shareholders.

154th Ordinary General Meeting of Shareholders (held on June 26, 2018)

Number of shareholders who attended

107shareholders

Percentage of those exercising voting rights

75.6%

Dialogue with Shareholders and Investors

Dialogue with Institutional Investors and Analysts

We hold briefing sessions for investors covering the first-half and full-year periods.

In the fiscal year ended March 31, 2018, large meetings were held at the Securities Analysts Association of Japan and smaller meetings were at the Company's Tokyo Headquarters. There was a cumulative total of 52 attendees, and the Company hosted a relaxed dialogue via a Q&A format.



Number of dialogues in the fiscal year ended March 31, 2018 Cumulative total of **97** companies

Dialogue with Individual Investors

Immediately after the General Meeting of Shareholders, we held an informal gathering at our Headquarters and heard opinions from our shareholders firsthand. On July 5, we held a management briefing session in Otemachi, Tokyo, geared toward shareholders in the Kanto region. Including the discussions afterward, the management conveyed its thoughts to the shareholders. In the years to come, the Company will continue to host occasions at which to convey its direction in a more easily understood manner.

Number of attendees at management briefings in 2018
128 attendees

Domestic/Overseas Network (As of March 31, 2018)

Domestic Network

Name	Location	Ownership of voting rights (%)	Connection to DKS's business	Details of connection to DKS's business
Yokkaichi Chemical Company Limited ¹	Yokkaichi, Mie	100	 Surfactants Polyurethane materials 	 Manufacturing of surfactants and polyurethane materials, etc.
Gembu Co., Ltd.	Chuo-ku, Osaka	100	 Surfactants Amenity materials 	 Sales of surfactants and amenity materials, etc.
Dai-ichi Kenkou Co., Ltd.	Chuo-ku, Tokyo	100	 Polyurethane materials 	 Sales of civil engineering and construction-use chemicals, etc.
Dai-ichi Ceramo Co., Ltd.	Higashiomi, Shiga	100	 Electronic device materials 	 Rental of land and buildings
Elexcel Corporation	Yokkaichi, Mie	80	 Electronic device materials 	 Contracted research related to dye-sensitized solar batteries and medium-sized lithium batteries
K&D Fine Chemical Corporation*	Chuo-ku, Chiba	50	 Surfactants 	 Manufacturing of surfactants, etc.

Head Office/Laboratory





Shiga Branch Location: 427 Gokasho Hiyoshi-cho, Higashiomi, Shiga Area: 106,813 m² Main products: Sucrose fatty acid esters, food additives, metal surface treatment agents, surfactants, solvent-alternative aqueous and non-aqueous detergents



Chitose Plant, Yokkaichi Branch Location: 7 Chitose-cho, Yokkaichi, Mie Area: 17,355 m² Main products: Polyether polyols, urethane prepolymers, EV/EB-curable monomers/oligomers, anionic surfactants, cationic surfactants



Main products: CMC, waterborne polyurethanes, professional detergents, polývinylpyrrolidone



Kasumi Plant, Yokkaichi Branch

Location: 1-23-5 Kasumi, Yokkaichi, Mie Area: 101,138 m² Main products: Polyurethane materials, functional materials

Overseas Network

Name	Location	Ownership of voting rights (%)	Connection to DKS's business	Details of connection to DKS's business
P.T. Dai-ichi Kimia Raya	Karawang, Indonesia	91.53	 Surfactants Amenity materials Functional materials 	 Manufacturing and sales of surfactants, etc.
Chin Yee Chemical Industries, Co., Ltd.	Taipei, Taiwan	51	 Surfactants Amenity materials Functional materials 	 Manufacturing and sales of plastic lubricants, etc.
DKS (Shanghai) International Trading Co., Ltd.	Shanghai, China	100	 Surfactants Amenity materials Functional materials 	 Importing and exporting operations for the company's products, etc.
Sisterna B.V.	Roosendaal, the Netherlands	94.9	• Amenity materials	 Sales of sucrose fatty acid esters
Shuang Yi Li (Tianjin) New Energy Co., Ltd.	Tianjin Economic- Technological Development Area, China	100	 Electronic device materials 	 Manufacturing and sales of lithium-ion polymer batteries
Chin Yee Chemical Technologies (Wuxi) Co., Ltd.*	Wuxi, Jiangsu, China	57 (57) ²	 Functional materials 	 Manufacturing and sales of functional materials
Dai-ichi Kogyo Seiyaku (Singapore) Pte. Ltd.***	Singapore	0	 Amenity materials Functional materials 	• Trading
DDFR Corporation Ltd.**	Hong Kong SAR, China	50	 Functional materials 	 Purchasing of flame retardants

The ratio of total sales of Yokkaichi Chemical Company Limited to consolidated sales (excluding internal sales between consolidated companies) is more than 10%. Specified subsidiary.
 Figure in () in ownership ratio of voting rights indicates indirect ownership ratio included in the total.
 * indicates equity-method non-consolidated subsidiaries; ** indicates an equity-method affiliate, **** indicates a non-consolidated subsidiary,

DDFR Corporation Ltd.





Shuang Yi Li (Tianjin) New Energy Co., Ltd.



DKS (Shanghai) International Trading Co., Ltd.



Chin Yee Chemical Technologies (Wuxi) Co., Ltd.



Chin Yee Chemical Industries, Co., Ltd.



Corporate Data (As of March 31, 2018)

Corporate Name	DKS Co. Ltd.	Headquarters / Labo 5 Ogawara-cho, Kissh Japan Phone: +81 75 323 591	
Foundation	April 1909		
Incorporation	August 1918		
Paid-in Capital	8,895 million yen	Main Branch 55 Nishishichijo Higas 600-8873, Japan	
Number of Employees	497 (consolidated: 976)		
Total Number of Shares Outstanding	53,421,609 shares	Tokyo Headquarters 8th Floor, Yaesuguchi Chuo-ku, Tokyo 104-0 Phone: +81 3 3275 056	
Share Unit Number	1,000 shares		
Number of Shareholders	4,134	Osaka Branch 2nd Floor, Osaka Asah Chuo-ku, Osaka 541-I Phone: +81 6 6229 17	
Stock Listing	Tokyo Stock Exchange		
Securities Code	4461	Nagoya Office 7th Floor, Nagoya Inte Nagono, Nakamura-k Phone: +81 52 571 633	
Date of Record	Every year on March 31, and other dates as necessary and publicly announced in advance		
Annual Meeting of Shareholders	Every year in late June	Kyushu Office 4th Floor, Hakata Ekir Hakata-eki Minami, Ha Phone: +81 92 472 635	
Shareholder Registry Administrator	Mizuho Trust & Banking Co., Ltd. 1-2, Yaesu 1-chome, Chuo-ku, Tokyo		

oratory

hoin, Minami-ku, Kyoto 601-8391, 11 Fax: +81 75 326 7356

ashikubo-cho, Shimogyo-ku, Kyoto

i Daiei Building, 1-3-1 Kyobashi, 0031, Japan 561 Fax: +81 3 3275 0593

hi Seimei Building, 4-2-16 Koraibashi, -0043, Japan '17 Fax: +81 6 6229 1793

ernational Center Building, 1-47-1 ku, Nagoya 450-0001, Japan 331 Fax: +81 52 586 4539

imae Daiichi Building, 1-2-3 lakata-ku, Fukuoka 812-0016, Japan 53 Fax: +81 92 472 4989

List of Major Shareholders (Top 10)

Shareholder Name	Number of Shares	Ratio of Shareholding (%)
Japan Trustee Services Bank, Ltd. (Trust account)	5,891,000	11.61
The Dai-ichi Life Insurance Company, Limited	3,067,000	6.04
The Master Trust Bank of Japan, Ltd. (Trust account)	2,496,000	4.92
Mizuho Bank, Ltd.	2,135,000	4.21
The Bank of Kyoto, Ltd.	2,085,000	4.11
Asahi Mutual Life Insurance Company	1,697,000	3.34
Shareholding Association of DKS's Business Partners	1,362,000	2.68
DKS Employee Shareholding Association	1,252,269	2.47
RE FUND 116-CLIENT AC	1,201,000	2.37
DFA International Small Cap Value Portfolio	1,062,536	2.09

Notes: 1. The Company has 2,661,260 of treasury shares that are excluded from the major shareholders above. 2. The ratio of shareholding is calculated after subtracting of treasury shares.

Shareholder Distribution

Composition by Shareholder





On Publishing the DKS Report 2018

The issue of the fiscal year ended March 31, 2018, marks the third time the DKS Group has published its integrated report. Since its initial publication in 2016, the integrated report has been positioned as an important means of communicating management information to all stakeholders. From a long-term perspective, the Company aims to look at the current situation and explain the growth strategy for the future in an easily understood manner. I consider this to be a source of dialogue on the creation of value.

As a listed company, our aims are to meet the expectations of our shareholders and to improve the creation of value in cooperation with our customers, business partners and employees. For the happiness of the people in the world and conservation of the global environment, the realization of society's Sustainable Development Goals (SDGs) is being demanded. While disclosing a wide range of information, including nonfinancial content, the Company has been focusing on gaining everyone's understanding through IR activities and other means.

A bill relating to work-style reforms was enacted on June 29 this year, and the Company has been certified as an Excellent Health and Productivity Management Organization (White 500) by the relevant government agencies. For last year's DKS Report 2017, we were awarded the best newcomer prize by the Japanese organization of the World Intellectual Capital/Assets Initiative (WICI Japan). Little by little, we are receiving plaudits for our efforts from outside the Company.

In DKS Report 2018, we maintained an awareness of the SDGs toward which the Company's management is aiming, as well as the ESG aspects and CSR priority issues. We are paying heed to the expressions used for explaining the businesses in which we are engaging so that they are made simple. We also worked to simplify the descriptions of the complex operations characteristic of chemical manufacturers in a form called B to B. It is my intention to raise corporate value and deepen the dialogue with all our stakeholders, including shareholders and investors.

I would appreciate hearing your frank and candid opinions and impressions with regard to this Report.



SAKAMOTO Takashi Chairman CEO September 2018

Editing Postscript

Launched at the same time as our 5-Year Management Plan, the Company's integrated report now has reached its third issuance. Receiving a prestigious prize from WICI Japan last year served to focus our minds when editing. Because this Report is not solely for investors, information disclosure that includes nonfinancial information is strongly desired. We would like this report to be utilized as reference material to enable employees, customers, suppliers and other stakeholders to gain a deeper understanding of DKS.

This year, the creating and editing of the Report was carried out by three people over a period of about half a year. We set out to show the Company's value creation capabilities by, for example, the enhancement of the ESG information and combining financial and nonfinancial information with reference to the IIRC integrated reporting framework. We also cooperated with the production company on the visual side and intend to devise ways to make the Report more reader friendly. We would like to take this opportunity to express our gratitude to all the parties concerned for their cooperation in the editing. We would also welcome frank opinions from readers, with whom we intend to link more directly with the fiscal year ending March 31, 2019, issue.



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Published: October 2018 Printed in Japan

