

# ESG Promotion

## Management Approach

### Basic Policy

In 2018, Kaneka Group established the ESG Charter to evolve its ESG management. Aiming to provide valuable solutions globally with a focus on chemistry, the ESG Charter serves as an action agenda for each employee to materialize our Corporate Philosophy.

### ESG Charter

#### Putting the Corporate Philosophy Into Practice

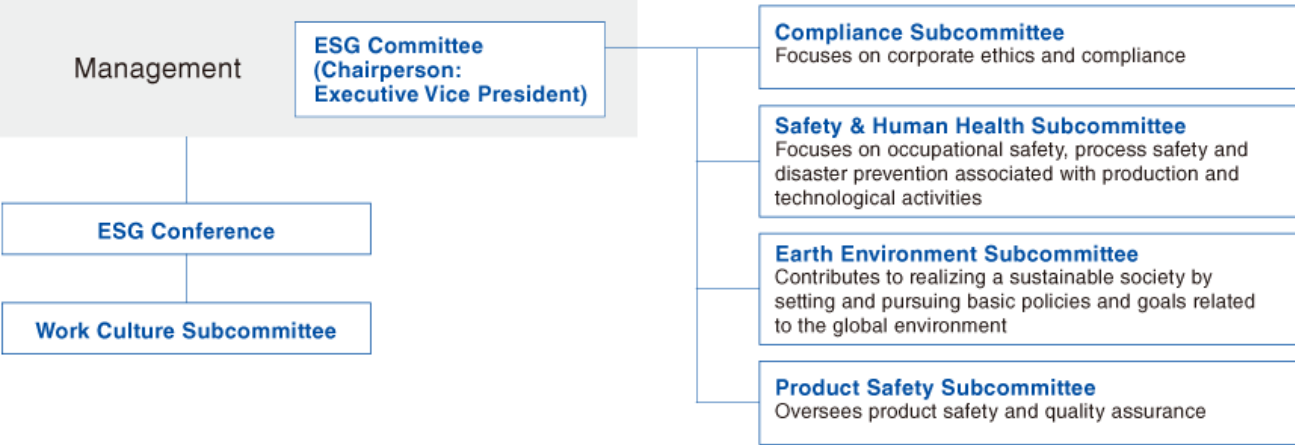
- 1. We offer solutions characterized by value to global markets and contribute to the evolution of lifestyles and the environment through innovative chemistry.**
  - 1** We bring innovation to lifestyles and the environment by harnessing the unlimited potential of chemical materials to help communities achieve sustainability. (Earthology Chemical Solution)
  - 2** By adopting a unified approach to food and medicine that is defined by a focus on chemistry, we provide innovative solutions that empower people to live healthier lives. (Active Human Life Solution)
- 2. We fulfill our social responsibility by empowering individual employees to put our corporate philosophy into practice through serious, forward-looking effort.**
  - 1** We actively contribute to our communities by cultivating understanding of the cultures and customs of the countries and regions where we do business and by pursuing corporate activities that are deeply rooted in those communities.
  - 2** We operate our businesses in a fair and impartial manner based on the principles of free competition and legal compliance.
  - 3** We're committed to communicating with shareholders and other stakeholders and to making information about our operations available in a timely and appropriate manner.
  - 4** We strive to foster an organizational culture that respects the personalities and uniqueness of all employees so that they can enjoy good health, feel motivated, and make the most of their abilities.
  - 5** Reflecting a commitment to make safety the top priority in our operations, we work to create safe and healthy workplaces, ensure product safety, and protect and preserve the environment.

# ESG Promotion System

In line with the ESG Charter, the ESG Committee is addressing environmental, social, and governance issues, coordinating the Compliance Subcommittee, the Safety & Human Health Subcommittee, the Earth Environment Subcommittee, and the Product Safety Subcommittee.

In April 2019, the ESG Conference was newly established to set policy directions to promote ESG management, wellness-first management, and work culture innovation, aiming to enhance sustainable corporate value.

### ■ Diagram of ESG Promotion System



## ESG Promotion

### ESG Promotion Activities

#### ESG Committee

In fiscal 2018, the ESG Committee met twice, and the four Subcommittees met individually (Compliance: twice, Safety and Human Health: twice, Earth Environment: twice, and Product Safety: once). The ESG Committee assessed the implementation status of each Subcommittee's activities, shared information on key issues, deliberated the fiscal 2019 action policy plan, and decided on necessary management measures.

#### ESG Inspections

To inspect the legal and regulatory compliance status of the Kaneka Group and to improve its occupational safety and health performance, ESG inspections are carried out, comprising ESG safety and quality inspections and ESG evaluation audits, targeting all Group companies within and outside Japan. To monitor progress of ESG activities, we conduct ESG safety and quality inspections for environmental protection, occupational health and safety, product safety, and quality assurance. ESG evaluation audits ensure compliance with the Antimonopoly Act.

Kaneka's Environmental Health and Safety Management Regulations and Quality Management Regulations clearly define the actions and responsibilities expected of Group companies. Encouraging employees to be proactive, we endeavor to reduce environmental impacts and occupational accident risks, as well as to improve our crisis response capabilities in case of natural disasters and product accidents.

In fiscal 2018, we conducted ESG safety and quality inspections at all parent Manufacturing Sites, 15 sites of 13 Group companies in Japan, and six sites of six Group companies outside Japan, focusing on serious risk management, compliance, 3Ss, and company-wide implementation of basic safety actions.

We also conducted ESG evaluation audits relating to competition laws, including the Antimonopoly Act, for all business operations divisions, 28 Group companies in Japan, and 14 outside Japan.

#### ESG Education

We engage in educational activities to promote ESG within the company through training sessions and our Intranet. In fiscal 2018, training sessions were conducted four times for new employees and twice for mid-career employees.

## Support for the United Nations Global Compact

In March 2015, the Kaneka Group became a signatory to the United Nations Global Compact. The UN Global Compact is a voluntary code of conduct through which the top management of signatory companies commit themselves to take action aimed at achieving ten principles in the four areas of Human Rights, Labour, Environment, and Anti-Corruption. As a group with a global network, we actively share information about our commitment to global sustainable growth as a responsible corporate citizen with our stakeholders and the international community.

**WE SUPPORT**



United Nations Global Compact

### ■ The Ten Principles of the UN Global Compact

Human Rights	<ul style="list-style-type: none"> <li>• Principle 1 : Businesses should support and respect the protection of internationally proclaimed human rights; and</li> <li>• Principle 2 : make sure that they are not complicit in human rights abuses.</li> </ul>
Labour	<ul style="list-style-type: none"> <li>• Principle 3 : Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;</li> <li>• Principle 4 : the elimination of all forms of forced and compulsory labour;</li> <li>• Principle 5 : the effective abolition of child labour; and</li> <li>• Principle 6 : the elimination of discrimination in respect of employment and occupation.</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Principle 7 : Businesses should support a precautionary approach to environmental challenges;</li> <li>• Principle 8 : undertake initiatives to promote greater environmental responsibility; and</li> <li>• Principle 9 : encourage the development and diffusion of environmentally friendly technologies.</li> </ul>
Anti-Corruption	<ul style="list-style-type: none"> <li>• Principle 10 : Businesses should work against corruption in all its forms, including extortion and bribery.</li> </ul>

## ESG Promotion

### Promoting Responsible Care

#### Promoting Responsible Care

Kaneka Group has put in place policies governing safety and Responsible Care(\*), and internal regulations ensuring effectiveness of the Responsible Care approach.

\* Responsible Care refers to actions undertaken on a voluntary basis by the chemical industry to promote improvements in aspects of environmental, safety, and health performance, throughout the entire process from the development of chemical products to their manufacture, usage and disposal. The initiatives and achievements are communicated to the public to raise public confidence in their operations. Kaneka has been actively promoting this approach since 1995 as a founding member of the JCIA Responsible Care Committee (former Japan Responsible Care Council) established by the Japan Chemical Industry Association.

#### Basic Policies for Responsible Care

In keeping with our corporate philosophy, we at the Kaneka strive to ensure the conservation of resources and reduce environmental impact throughout the entire product lifecycle, while working to help realize the sustainable development and prosperity of society.

#### Basic Policies for Responsible Care

##### 1. Protect the natural ecosystem and reduce environmental impact

Focusing on the impact of corporate activities on the global environment and the ecosystem, we endeavor to reduce environmental impact and promote resource conservation and energy saving throughout the lifecycle of products.

##### 2. Offer safe products and information

We endeavor to offer products that are safe to distribute and use, and to provide adequate information on the products such as instructions on how to use and handle products correctly.

##### 3. Develop products and technologies in consideration of the environment and safety

Upon the development of new products, we give consideration to the environment and safety throughout the lifecycle of the products to the greatest extent possible, and endeavor to develop products and technologies with low environmental impact.

#### **4. Reduce waste and promote the recycling of plastics**

We reduce waste associated with manufacturing and its processes. We actively develop technologies for the adequate disposal or recycling of plastic waste concerning our products in cooperation with relevant industries, and endeavor to dispose of and recycle waste in a proper manner.

#### **5. Enhance process safety, disaster-prevention, and occupational safety and health**

Safety and disaster prevention constitute the foundations of the local community's trust, and occupational health and safety are issues that need to be fulfilled by chemical companies. We persistently strive to make improvements in these areas.

#### **6. Win public confidence**

From the management to every employee, all our members shall act in compliance with laws, regulations, standards, etc. relating to environment and safety both at home and abroad. Our approach to Responsible Care as such shall be publicized accurately to the public, in hope of rightfully gaining public recognition and confidence.

## **Responsible Care Activities**

At Kaneka, we carry out a range of Responsible Care activities to further promote measures that can be taken by the chemical industry to protect human health and safety and preserve the environment. To ensure progress with respect to the six RC codes (environmental protection, process safety and disaster prevention, occupational safety and health, chemicals and product safety, distribution safety, and interaction/communication with the public), Kaneka has set up a system to guide its initiatives.

## **Responsible Care Education**

At Kaneka, we conduct Responsible Care education activities in a thorough manner tailored to each of our facilities and employees' areas of responsibility. RC training is provided to staff members in their third year and to newly promoted executives, in order to deepen their understanding of, and to enable them to act on, our company's activities related to the RC codes: such as environmental protection; process safety and disaster prevention; occupational safety and health; and chemicals and product safety.

## Participated in a Responsible-Care Community Dialogue

Community dialogues for fiscal 2018 were held by the JCIA Responsible Care (RC) Committee in Hyogo and Kashima on February 2, 2019 and February 15, 2019, respectively. The Takasago Manufacturing Site and the Kashima Manufacturing Site participated in the dialogues as a member company in Hyogo and a managing company in Kashima, respectively. Community dialogue is intended to introduce the activities of district RC member companies to community residents and administrative officials and enable them to have better understanding of our business activities. The activities are mainly composed of five codes: environmental protection, process safety and disaster prevention, occupational safety and health, chemical and product safety, and distribution safety.

In the dialogues, member companies gave presentations on their RC activities and outcomes.

We will continue to promote mutual understanding with local communities through RC activities.



Community dialogue in Kashima

# Environment

## Management Approach

### Basic Policy

In keeping with our ESG Charter, we at the Kaneka Group will contribute to realizing sustainable development and the enrichment of society by conserving resources and reducing environmental impacts at each stage of the entire product lifecycle.

### Policy

#### Basic Policies for Responsible Care

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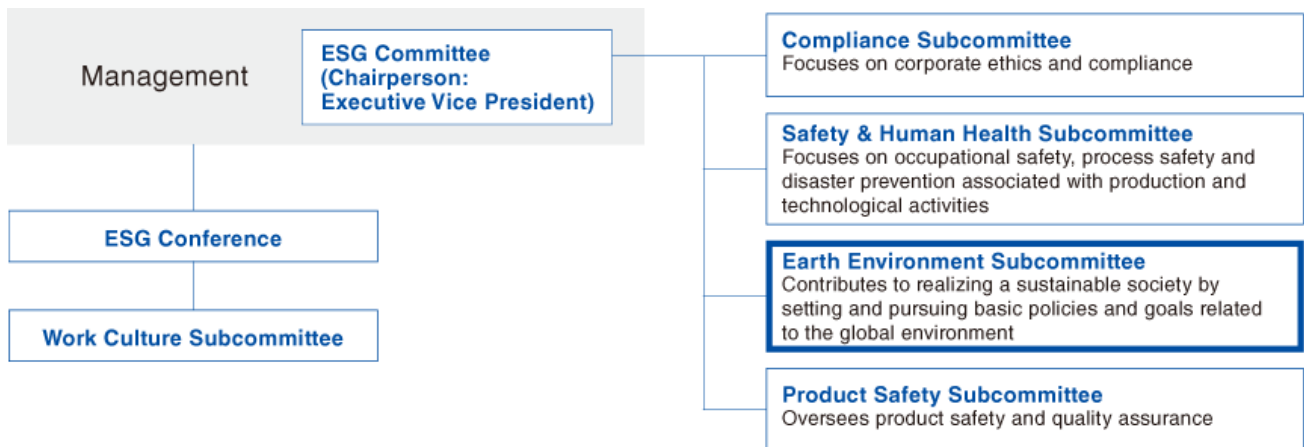
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## Promotion System

Important matters pertaining to the protection of the global environment are discussed by the Earth Environment Subcommittee and decided by the ESG Committee. Meanwhile, issues on global environment protection are shared and further discussed at the management meeting, the Plant Management Committee, and other meetings. The medium-term management plan also focuses on strengthening initiatives on important matters to further improve our ESG management.

### ■ Diagram of Promotion System



# Environment

## Environmental Management

### Eco-Friendly Management

Under the policy of “providing solutions that contribute to the global environment and a rich life, while working to reduce environmental impacts and disclose timely information in fundamental business domains,” Kaneka Group engages in various environmental initiatives.

### Eco-Friendly Products

Focusing on eco-friendly management from fiscal 2017, we will define, enhance, and expand our eco-friendly products(\*1).

\*1 Products that can contribute to reducing global environmental impacts at the stages of customer use, disposal and recycling, compared to conventional products

Energy Creation	Energy Storage	Energy Saving	Energy Saving	Waste Reduction	Chemical Pollution Prevention
					
<b>Product name</b> VISOLA SoltileX GRANSOLA	<b>Product name</b> Residential electricity storage systems	<b>Product name</b> Kanepearl	<b>Product name</b> Eperan	<b>Product name</b> PHBH	<b>Product name</b> KANEKA Surfactin
<b>Intended use</b> Solar power generation systems	<b>Intended use</b> Residential stationary batteries	<b>Intended use</b> Residential/automotive foams	<b>Intended use</b> Automotive parts Package cushioning materials	<b>Intended use</b> Biodegradable Polymer (Packaging materials, garbage bags, foams)	<b>Intended use</b> Biosurfactant, Cleaning agents
<b>Reason for environmental contribution</b> Creating energy with houses equipped with this product	<b>Reason for environmental contribution</b> Storing energy by houses equipped with this product	<b>Reason for environmental contribution</b> Saving energy as insulation and lightweight residential/automotive materials	<b>Reason for environmental contribution</b> Saving energy as lightweight automotive parts	<b>Reason for environmental contribution</b> A naturally derived and biodegradable polymer that has little environmental impact when discarded	<b>Reason for environmental contribution</b> A naturally derived and biodegradable material friendly to the environment

## Definition of Eco-friendly Products

Kaneka Group has defined eco-friendly products as follows.

Type of Environmental Contribution	Qualitative Definition
GHG Reduction	Products reducing greenhouse gas (GHG) emissions
Energy Saving	Products lowering energy consumption
Energy Creation	Products creating energy
Energy Storage	Products storing energy
Waste Reduction	Products reducing waste
Resource Saving	Products achieving resource savings
Biomass	Products (derived from non-fossil materials) reducing reliance on fossil materials
Water Resources	Products saving water and improving the water environment
Chemical Pollution	Products preventing chemical pollution
Biodiversity	Products conserving biodiversity
Intermediate Materials	Intermediate materials essential to ensuring that finished products contribute to the environment
Disaster Control	Products helping disaster prevention and preparedness and reducing environmental impacts during a disaster
Adaptive Contribution	Products adapting to global warming

### TOPICS

## Development of T-Green Multi Solar, an exterior system that generates electricity utilizing the outer wall and window surfaces of buildings

We have developed, in partnership with Taisei Corporation, the exterior system “T-Green Multi Solar,” which generates electricity through photovoltaic laminates integrated into wall and window surfaces of buildings. With high efficiency in generating electricity, its multi-functionality (providing natural light, high visible light transmission, heat shielding and thermal insulation), and flexibility in building design, the system also functions as an independent emergency power source during times of disaster.

We will actively propose this system as an energy-creation technology towards realization of urban-type ZEBs (Zero Energy Buildings) to companies engaged in environmental management,

companies reinforcing their BCPs, public facilities acting as bases during disasters, and condominium residences aiming to strengthen their LCP (Life Continuity Performance).

\* “T-Green” is a registered trademark of Taisei Corporation.



Sample of utilization (The exterior of a small- to medium-sized building)

## Environmental Management Systems

Kaneka Group operates based on ISO 14001 and Eco-Action 21 environmental management systems, with the aim of reducing environmental impacts, preventing environmental problems, and responding quickly if any problems arise.

### ■ Kaneka and Group Company Certification under ISO 14001

Manufacturing Sites and Group Companies	Registration No.
Shiga Manufacturing Site	YKA4004950
Osaka Manufacturing Site	JCQA-E-0053
Kashima Manufacturing Site	JCQA-E-0054
Takasago Manufacturing Site	JCQA-E-0105
Tochigi Kaneka Co., Ltd.	0076859
Osaka Synthetic Chemical Laboratories, Inc.	JCQA-E-0343
Tatsuta Chemical Co., Ltd. Koga Plant	3571208
Showa Kaseikogyo Co., Ltd. Hanyu Headquarters Factory	E0062

Manufacturing Sites and Group Companies	Registration No.
Cemedine Co., Ltd. Ibaraki Office, Mie Plant	JCQA-E-0366
Cemedine Co., Ltd. Kinuura Plant	497791UM15
Vienex Corporation	JSAE1511
Kaneka Solartech Corporation	JQA-EM6704
Sanvic Inc.	JMAQA-E841
Kaneka Belgium N.V.	97 EMS 002e
Kaneka (Malaysia) Sdn. Bhd.	ER0523
Kaneka Paste Polymers Sdn. Bhd.	ER0523
Kaneka Eperan Sdn. Bhd.	ER0523
Kaneka Innovative Fibers Sdn. Bhd.	ER0523
Kaneka Apical Malaysia Sdn.Bhd.	ER0916

■ Eco-Action 21 Certification

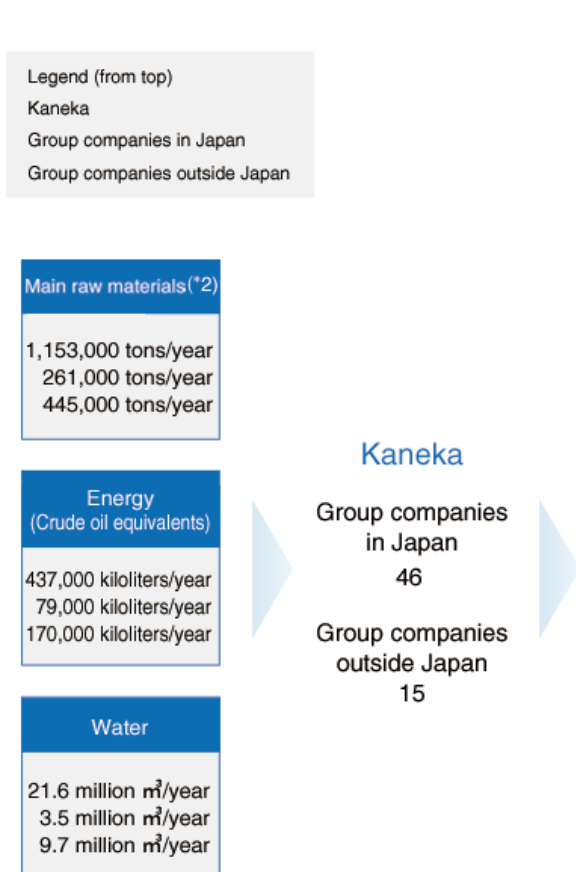
Group Company	Certification and Registration No.
Kyushu Kanelite Co., Ltd.	0001637
Kaneka Hokkaido Styrol Co., Ltd.	0001805
Kaneka Medix Corporation	0001893
Hokkaido Kanelite Co., Ltd.	0001905
Kaneka Tohoku Styrol Co., Ltd.	0010773
Nagashima Shokuhin Co., Ltd.	0003093
Kaneka Foam Plastics Co., Ltd. Moka Plant	0003247
Kaneka Chubu Styrol Co., Ltd.	0006600
Tokyo Kaneka Foods Manufacturing Corporation	0003473
Taiyo Yushi Corporation	0003575
Kaneka Foods Manufacturing Corporation	0003491
Kaneka Sun Spice Corporation	0003556
Kaneka Nishinippon Styrol Co., Ltd. Headquarters, Saga Plant, Kagoshima Plant, and Nagasaki Plant	0003949
Kanto Styrene Co., Ltd.	0004035
Kaneka Kanto Styrol Co., Ltd.	0004259
OLED Aomori Co., Ltd.	0010329
Kochi Styrol Co., Ltd.	0011039

## Material Balance in Production Activities

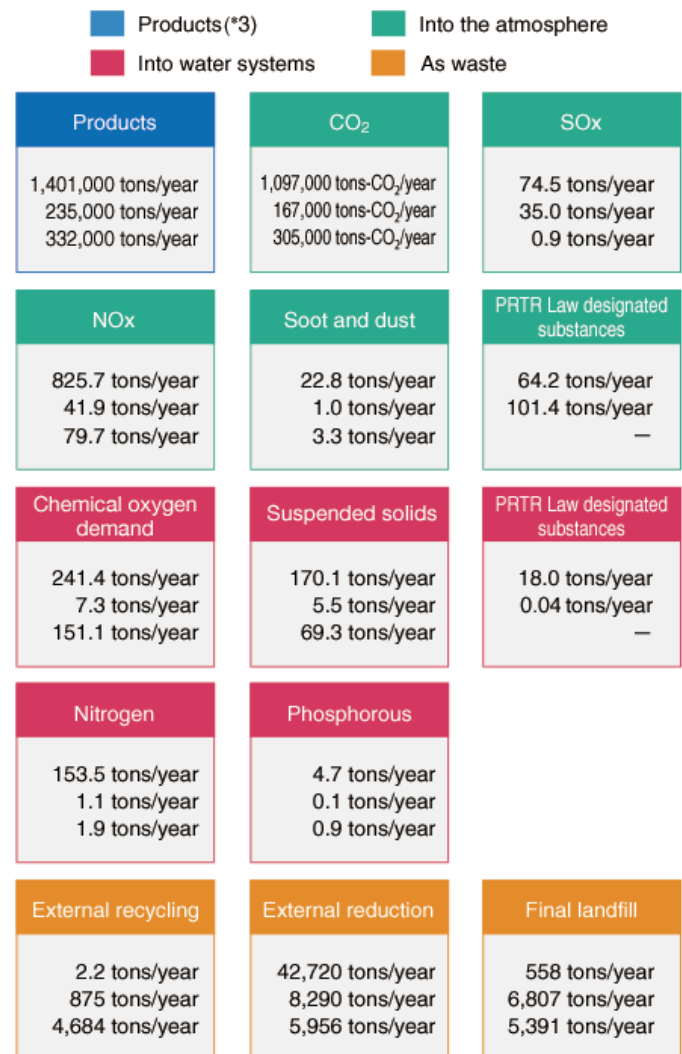
Kaneka Group is working to reduce environmental impacts by aggregating the status of energy and resource inputs and material outputs through emissions and products to grasp production activity volume, targeting Kaneka and Group companies within and outside Japan.

In fiscal 2018, while the inputs remained unchanged from the previous fiscal year, the outputs showed a decrease of NOx by 41.1 tons (4.1%) and of final landfill waste by 476.7 tons (7.8%).

### INPUTS Energy and Resources



### OUTPUTS Discharges, Recycling, and Products



\*2 Raw materials calculated in or converted to tons.

\*3 Products calculated in or converted to tons.

## Environmental Accounting

We calculate the environmental costs (investments and expenditures) and benefits (material quantities), as well as economic impacts (in monetary units) of environmental measures on a consolidated basis for all parent Manufacturing Sites and 30 Group companies in Japan (manufacturing companies).

## Results of Environmental Accounting

In fiscal 2018, environmental costs (investments) were about 900 million yen, a decrease of about 280 million yen from the previous fiscal year.

Environmental costs (expenditures) increased by about 240 million yen, 180 million yen, and 270 million yen for pollution prevention, resource recycling, and research and development, respectively, year-on-year.

Regarding the economic impacts of environmental measures, revenue from recycling and the cost reduction effect due to better resource efficiency (output per unit of input) declined by about 50 million yen and 40 million yen, respectively, year-on-year. Meanwhile, the reduction effect on waste disposal costs due to recycling and the cost reduction effect due to energy conservation and other savings increased by 120 million yen and 70 million yen, respectively, year-on-year.

These calculations are based on the 2005 edition of the Environmental Accounting Guidelines by Japan's Ministry of the Environment and other reference materials, with partial modifications.

### ■ Environmental Costs (Investments, Expenditures) (Millions of yen)

Cost Classifications	Main Efforts	Fiscal 2016		Fiscal 2017		Fiscal 2018	
		Investments	Expenditures	Investments	Expenditures	Investments	Expenditures
Business Area		1,046	4,884	1,177	5,036	901	5,460
1. Pollution Prevention	Air and water pollution prevention	1,011	3,150	1,130	3,236	899	3,476
2. Environmental Conservation	Addressing climate change and energy saving	-	-	-	-	-	-
3. Resource Recycling	Waste processing, recycling, and reduction	35	1,734	47	1,800	2	1,984
Upstream and Downstream	Product recycling, collection, and processing	0	8	0	8	0	6

Cost Classifications	Main Efforts	Fiscal 2016		Fiscal 2017		Fiscal 2018	
		Investments	Expenditures	Investments	Expenditures	Investments	Expenditures
Management Activities	Environmental education for employees and environmental impact monitoring and measurement	0	457	10	412	1	444
Research and Development	Research and development of products contributing to environmental conservation	0	6,728	0	7,203	0	7,477
Social Activities	Greening, beautification, and disclosure of environmental information	0	72	2	82	0	78
Environmental Damage	Payment of sulfur oxide emission charges	0	8	0	10	0	10
Total		1,046	12,157	1,188	12,752	902	13,475

\* These calculations are based on the 2005 edition of the Environmental Accounting Guidelines by Japan's Ministry of the Environment and other reference materials, with partial modifications.  
 Figures do not include research and development investment and global environment conservation costs.  
 Amounts reported here may not fully match, due to rounding.

#### ■ Quantitative Impact of Environmental Conservation Efforts

Category	Initiatives	Items	Units	Fiscal 2016	Fiscal 2017	Fiscal 2018
Pollution Prevention	Reduce atmospheric and water discharges of hazardous substances	SOx emissions	Tons	131.0	102.4	109.5
		NOx emissions	Tons	924.6	919.5	867.6
		Chemical oxygen demand	Tons	275.4	264.1	248.7
		PRTR Law-designated chemical emissions	Tons	160.3	168.5	183.6



Category	Initiatives	Items	Units	Fiscal 2016	Fiscal 2017	Fiscal 2018
Environment	Lower greenhouse gas emissions	CO <sub>2</sub> emissions	Thousands of tons CO <sub>2</sub>	1,228.0	1,255.0	1,264.0
	Use less energy	Crude oil equivalents	Thousands of kiloliters	489.0	509.0	516.0
Resource Recycling	Reduce final landfill	Final landfill	Tons	252.0	806.9	877.2
	Increase external recycling	Amounts recycled	Tons	43,633.0	44,900.0	51,002.0

■ Economic Impacts of Environmental Measures

(Millions of yen)

Measures	Fiscal 2016	Fiscal 2017	Fiscal 2018
Revenue from Recycling	130	258	213
Cost Reductions by Better Resource Efficiency (Output per Unit of Input)	-297	4	-34
Waste Disposal Cost Reductions by Recycling	489	327	450
Cost Reductions by Energy Conservation	123	177	247
Total	445	766	876

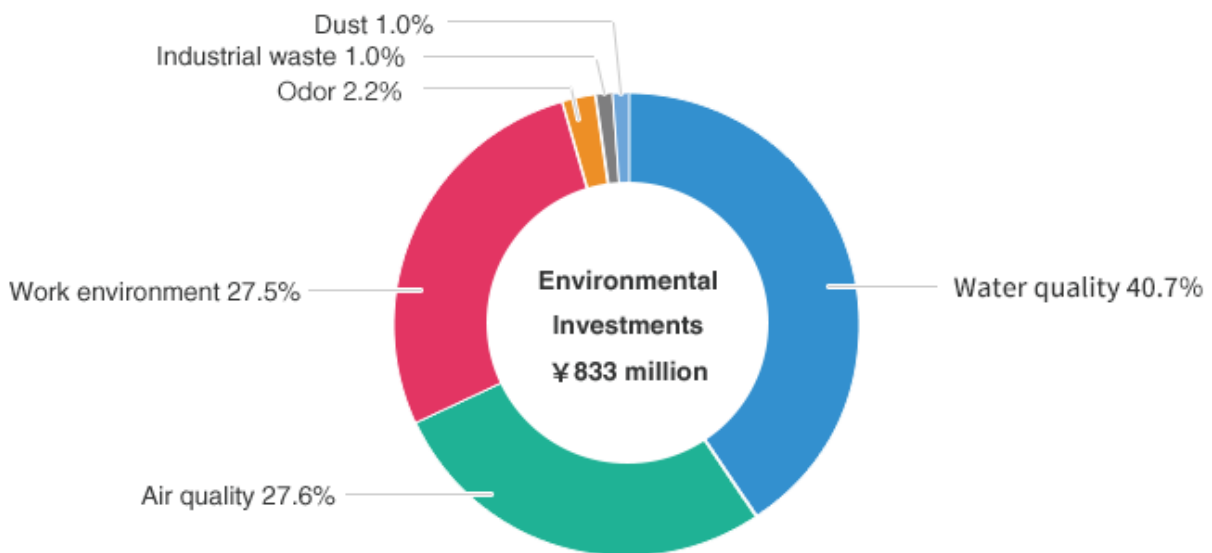
## Environmental Investments (Kaneka)

We continue to invest in the environment.

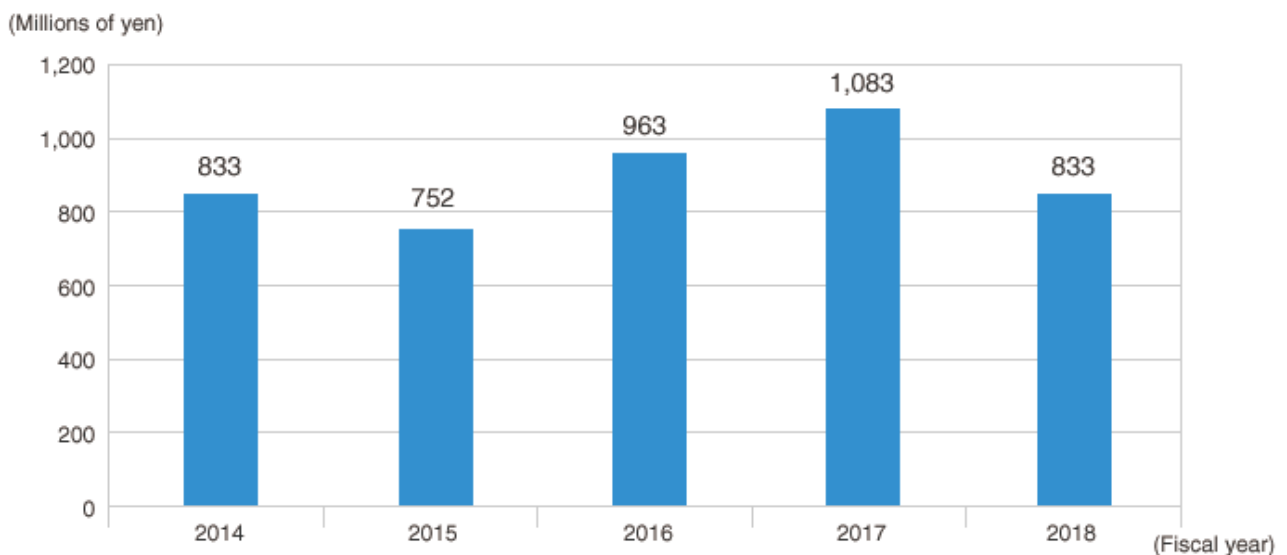
Investments in fiscal 2018 totaled about 830 million yen, of which 40.7% was for water quality, 27.6% for air quality, 27.5% for the work environment, and 2.2% for odor treatment.

Environmental investment over the past five years averages about 890 million yen, leading with air quality (31.1%), followed by the work environment (27.8%) and water quality (22.3%). We will continue to invest proactively to maintain and improve the environment.

### ■ Environmental Investments in Fiscal 2018



### ■ Cumulative Environmental Investments



## Environmental Efficiency

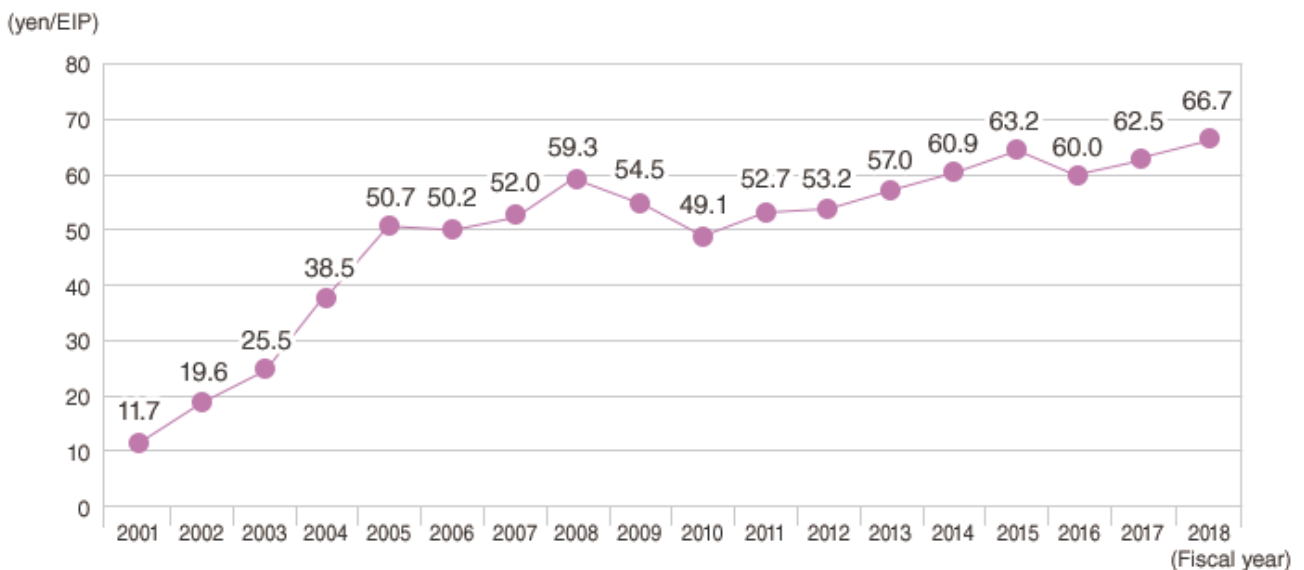
Kaneka assesses the environmental impacts of our production activities using Environmental Impact Points (EIP), which are compiled using the JEPIX methodology (\*4), and we use those points to assess our environmental efficiency (\*5).

Our total environmental impact in fiscal 2018 decreased slightly, by 2.6% from the previous fiscal year, to 4.57 billion EIPs, while our environmental efficiency improved by 6.7% from the previous fiscal year due to a reduction in environmental impacts.

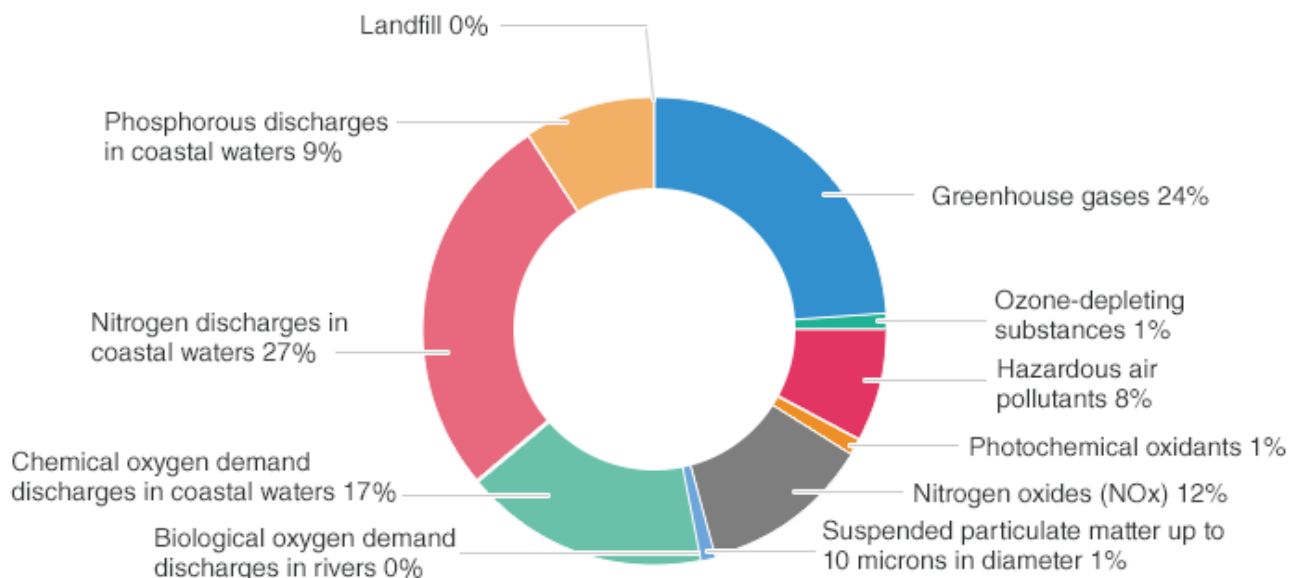
\*4 The Japan Environmental Policy Priorities Index (JEPIX) methodology involves the calculation of an "eco-factor" coefficient for each emitted substance that has an environmental impact, using a ratio of the annual target for emissions under national environmental policies versus actual annual emissions ("Distance to Target"). The eco-factors are then multiplied by a quantity for each environmental impact to produce a single integrated index known as Environmental Impact Points (EIP). Calculations of eco-factors are done by the JEPIX Project ([www.jepix.org](http://www.jepix.org), in Japanese).

\*5 Environmental efficiency is a yardstick to measure efforts to maximize value while minimizing environmental impacts, with the aim of achieving sustainable growth. Kaneka calculates this by dividing net sales (yen) by the EIP.

### ■ Environmental Efficiency



■ Details of Total Environmental Impact



Fiscal Year	Net Sales (million yen)	Environmental Impact (100 million EIPs)	Environmental Efficiency (yen/EIP)
2016	274,866	45.8	60.0
2017	293,016	46.9	62.5
2018	304,951	45.7	66.7

## Environmental Compliance

Kaneka Group continues working to reduce environmental risks through various means, including ISO 14001 internal audits and ESG safety and quality inspections, to check compliance with environmental regulations and legislation such as the Air Pollution Control Act and the Water Pollution Control Act, and with criteria in agreements with local governments.

## CHECK & ACT

The environmental impacts of greenhouse gas increased slightly from the previous fiscal year, while the environmental impacts of NOx, COD discharge to coastal waters, and phosphorus decreased, resulting in a reduction of about 2.6% in the total environmental impact.

We will continue working to reduce environmental impact and improve environmental efficiency by promoting energy-saving activities.

# Environment

## Climate Change

We are undertaking efforts to address climate change, with the Earth Environment Subcommittee established under the ESG Committee. We are working to promote energy-efficient use to reduce CO<sub>2</sub> emissions through various measures, for example by utilizing our own environmental capital investment program.

We also use carbon-Life Cycle Analysis (cLCA) to calculate CO<sub>2</sub> emission reduction benefits by quantitatively assessing CO<sub>2</sub> emissions throughout product lifecycle, making comparisons with similar products. We also calculate indirect greenhouse gas (GHG) emissions (Scope 3) associated with our business activities through supply chains.

### Energy Conservation Efforts

Our efforts at the Kaneka Group to address climate change include energy conservation, using the energy intensity index (\*1) as an indicator for management.

The energy intensity index for of all parent Manufacturing Sites in fiscal 2018 was 91.6, a reduction of 0.3% from the previous fiscal year due to factors such as energy conservation activities and differences in the product mix. Although this did not reach our goal (a decrease of 1.0% year-on-year), annual reduction over the five years was 1.6% on average, which means we met our target.

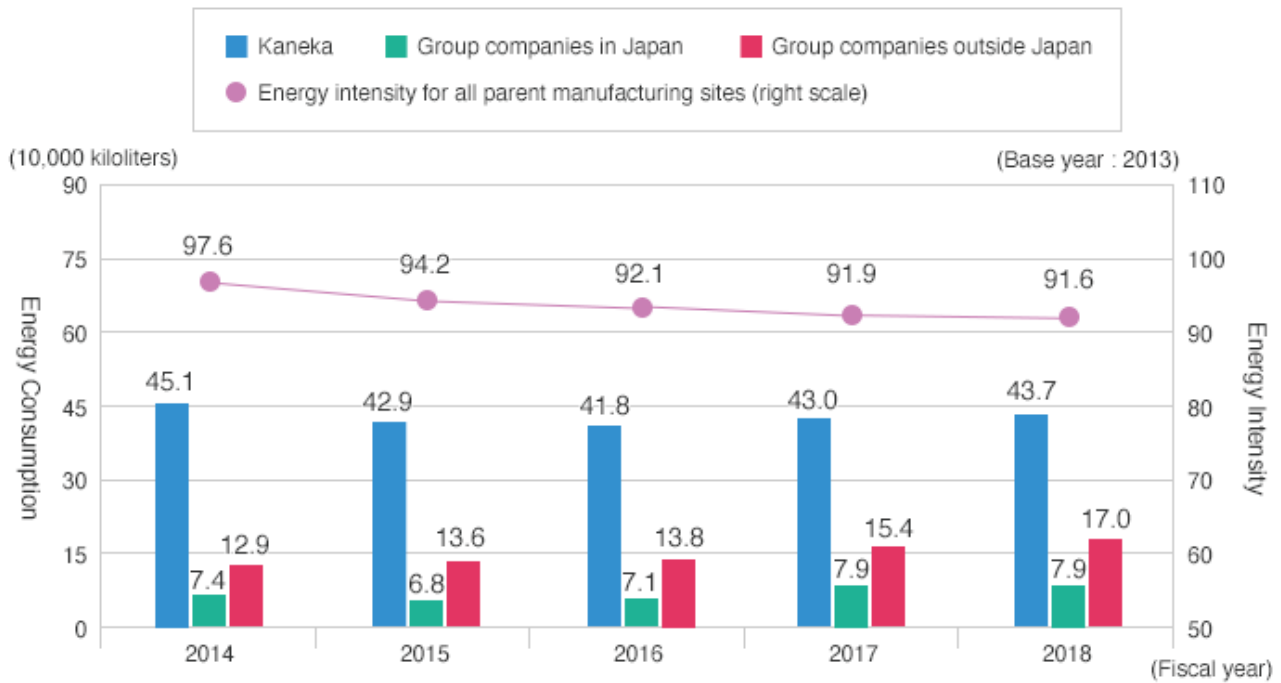
Consequently, since the start of the Business Operator Classification Assessment System under the Energy Saving Act, we have maintained the S-Class position (a business operator excellent in saving energy) for five consecutive years.

Non-consolidated energy consumption (\*2) was 437,000 kiloliters, an increase of 1.7% from the previous fiscal year, mainly due to an increase in production output.

\*1 Energy intensity index is a numeral value calculated by dividing the energy used in manufacturing (at all our parent manufacturing sites) by the active mass and indexing it against the baseline year of fiscal 2013 as 100. The amount of activity is an index representing the production volume of all our parent manufacturing sites. Energy consumption is calculated based on the Energy Saving Law (the Act on Rational Use of Energy).

\*2 This energy consumption is the total for Kaneka (manufacturing sites and other facilities), with the boundaries being consistent with the Act on the Rational Use of Energy and the Action Plan for a Low Carbon Society prepared by the Japan Chemical Industry Association.

## ■ Energy Consumption (Crude Oil Equivalents) and Energy Intensity



### Initiatives to Cut CO<sub>2</sub> Intensity

At Kaneka, we are working to reduce CO<sub>2</sub> intensity, using a CO<sub>2</sub> intensity index (\*3) as an indicator for management, based on CO<sub>2</sub> emissions from energy consumption associated with production activities. The energy-origin CO<sub>2</sub> emission intensity index for all parent Manufacturing Sites in fiscal 2018 was 91.4, achieving our fiscal 2020 target of 93.2 in advance.

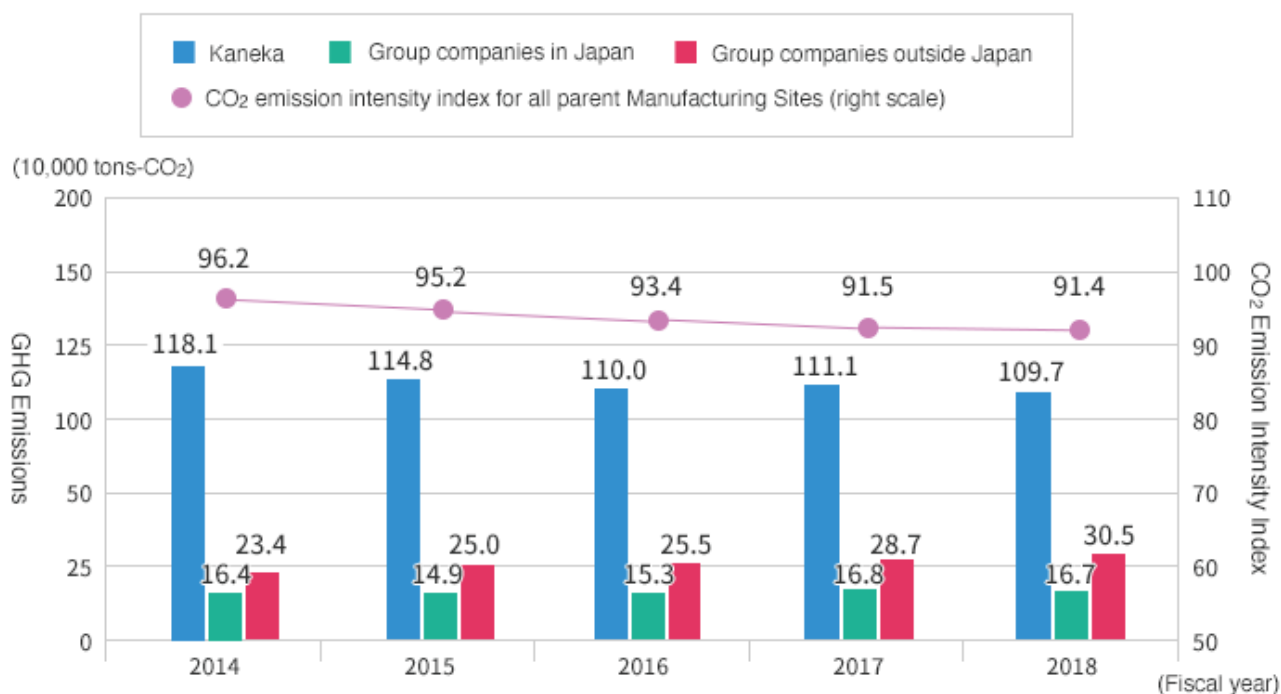
Our greenhouse gas (GHG) emissions (\*4) decreased 1.3% from the previous year to 1,097,000 metric tons of CO<sub>2</sub>, mainly through reducing the CO<sub>2</sub> emission coefficient of electricity.

We will continue to streamline our production processes through innovation to reduce CO<sub>2</sub> emissions.

\*3 A ratio of energy-origin CO<sub>2</sub> emissions per unit of output of a product, which is indexed against the baseline year of fiscal 2013 as 100. It helps in the visualization of the impact of our activities, and was used to establish targets for fiscal 2020.

\*4 GHG emissions, calculated in accordance with the Act on Promotion of Global Warming Countermeasures, are the total amount of energy-origin CO<sub>2</sub> emissions, non-energy origin CO<sub>2</sub> emissions, and the CO<sub>2</sub> equivalent of methane and N<sub>2</sub>O emissions.

## ■ GHG Emissions and Energy-origin CO<sub>2</sub> Emission Intensity Index



## GHG Emissions from Business Activities throughout the Supply Chain

We have calculated indirect greenhouse gas (GHG) emissions (Scope 3) associated with our business activities through supply chains. The following tables show our non-consolidated GHG emissions by scope and Scope 3 emissions calculated by category.

### ■ GHG Emissions by Scope (FY 2018 results at Kaneka)

Scope		GHG emissions [1,000 t CO <sub>2</sub> /year] (year-on-year)
Scope 1	Direct emissions (*5)	767.4 (△5.2%)
Scope 2	Indirect emissions from energy consumption	329.2 (+9.0%)
Scope 3	Other indirect emissions (upstream/downstream)	2,081.5 (△2.4%)
Total GHG emissions		3,178.1 (△2.0%)

\*5 Non-energy CO<sub>2</sub> emissions and equivalent CO<sub>2</sub> emissions of methane and nitrous oxide are included.

■ Scope 3 Emissions (FY 2018 results at Kaneka)

Category		GHG emissions [1,000 t CO <sub>2</sub> /year]
1	Purchased goods/services	1,490.1
2	Capital goods	34.7
3	Fuel-and energy-related activities not included in Scope 1 or Scope 2	83.0
4	Upstream transportation and distribution	23.1
5	Waste generated in operations	3.5
6	Business travel	4.6
7	Employee commuting	0.8
8	Upstream leased assets	0.0
9	Downstream transportation and distribution	– (*6)
10	Processing of sold products	– (*6)
13	Downstream leased assets	0.0
14	Franchises	– (*7)
15	Investments	441.6
Scope 3 total		2,081.5

Amounts reported here do not fully match, due to rounding in each category.

[Calculation methods] The Scope 3 emissions were calculated in accordance with the Basic Guidelines (Ver. 2.3) on the Calculation of Greenhouse Gas Emissions Throughout the Supply Chain and the Emissions Unit Database (Ver. 2.6) for Calculation of Greenhouse Gas Emissions, etc. by Organizations Throughout the Supply Chain, published by the Ministry of Environment. Methods for calculating GHG emissions for Category 11 “Use of sold products” and Category 12 “End-of-life treatment of sold products” are under consideration.

\*6 GHG emissions for this category were not calculated because we were unable to determine a rational calculation method due to the high percentage of intermediate products.

\*7 GHG emissions for this category were not calculated because we have no franchise stores.



## Investments in Energy-Efficient Facilities

To continue reducing energy intensity and CO<sub>2</sub> emission intensity, we are implementing our own environmental capital investment program, with an annual budget of 200 million yen for small and medium investments that have a relatively long payback period, through activities in three areas-global environment protection, resource conservation, and environmental impact reduction-that are priorities in Kaneka's environmental management program. In fiscal 2018 we continued allocating a large portion of this fund to projects that address climate change, including broader initiatives such as visualizing energy consumption. Based on the recognition that a certain effect has been produced, we will promote the use of this investment program for activities to reduce intensities.

### ■ Results of Our Own Environmental Capital Investment Program

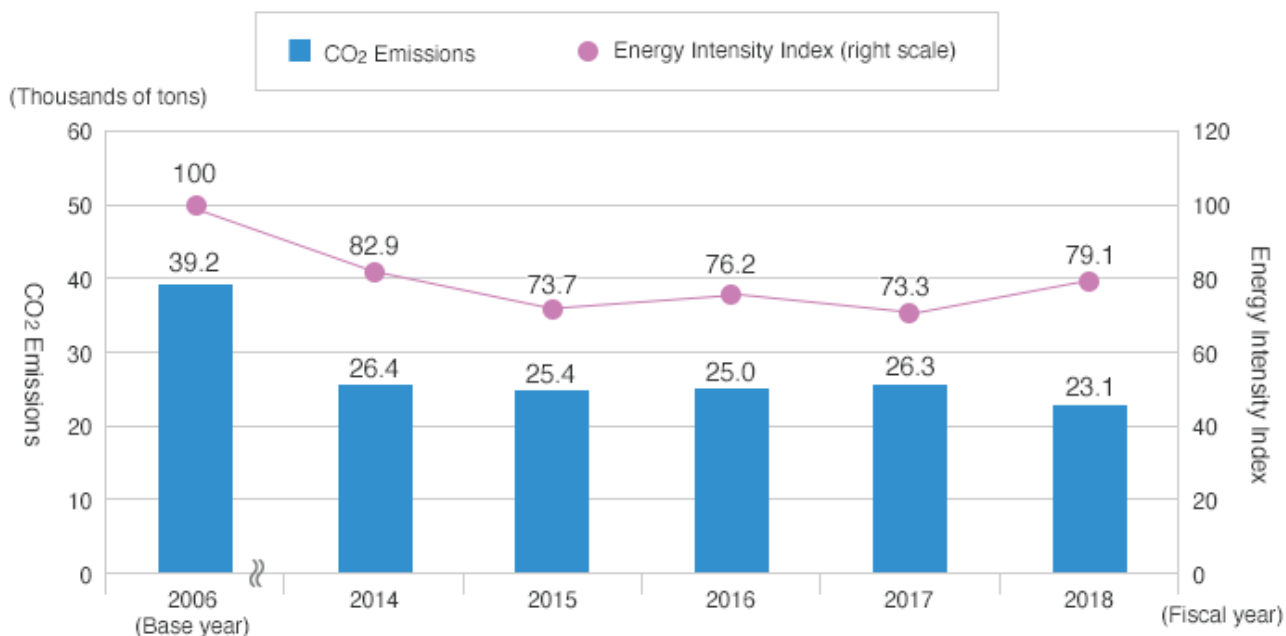
Fiscal Year	Investments	Number	Reduced CO <sub>2</sub> Emission
2014	¥200 million	37	1,644 tons-CO <sub>2</sub> /year
2015	¥200 million	22	1,435 tons-CO <sub>2</sub> /year
2016	¥200 million	23	1,688 tons-CO <sub>2</sub> /year
2017	¥200 million	15	1,654 tons-CO <sub>2</sub> /year
2018	¥200 million	24	1,748 tons-CO <sub>2</sub> /year

## Energy-Efficiency Initiatives in Logistics

To achieve an annual 1% reduction in energy intensity as a specified consigner under the amended Act on Rational Use of Energy, we continued working plant by plant towards promoting modal shifts and joint distribution and improving cargo load ratios.

In fiscal 2018, our CO<sub>2</sub> emissions decreased by 3,200 tons year-on-year partly due to a reduction in the total cargo loading volume. Meanwhile, a rise in the ratio of truck transportation, such as route truck shipping, increased an energy intensity index by 5.8 points compared to fiscal 2017.

■ CO<sub>2</sub> Emissions and Energy Intensity Index from Logistics\*8



\*8 Fiscal 2006 is the base year for indexing the logistics energy intensity as 100.

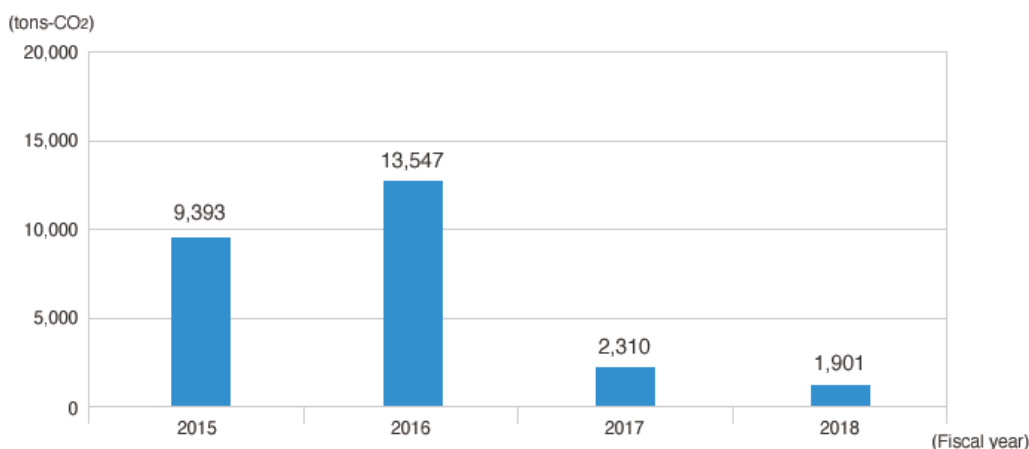
## Response to the Fluorocarbons Emission Control Law

The estimated leakage amount of fluorocarbons generated in fiscal 2018 was 1,901 tons-CO<sub>2</sub>, a decrease of 409 tons-CO<sub>2</sub> over the previous fiscal year, due to the replacement of aging equipment as well as strengthened equipment management, in particular, at the Takasago Manufacturing Site. No Group companies in Japan exceeded 1,000 tons-CO<sub>2</sub> leakage of fluorocarbons.

To reduce the estimated leakage of fluorocarbons to less than 1,000 tons-CO<sub>2</sub> by the end of fiscal 2020, we will update aging equipment in a planned way, selecting low-GWP (\*9) equipment and promoting fluorocarbon-free production. We also inspect equipment to detect and eliminate fluorocarbon leaks at an early stage.

\*9 GWP (Global warming potential) is a figure that shows, on the basis of carbon dioxide, how other greenhouse gases are capable of causing global warming.

■ Estimated Leakage of Fluorocarbons at Kaneka



# Environment

## Preventing Pollution and Managing Chemical Substances

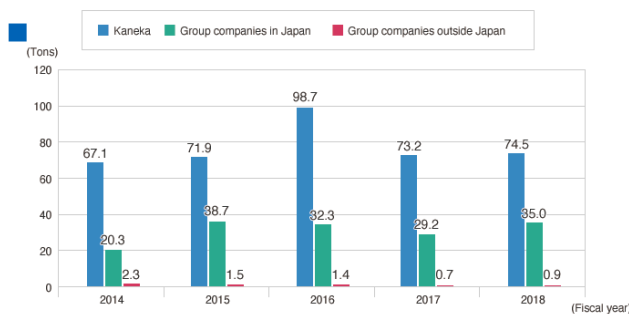
Kaneka Group works to prevent air and water pollution and to ensure appropriate management of chemical substances toxic to humans and the environment and reduce their emissions.

### Preventing Air and Water Pollution

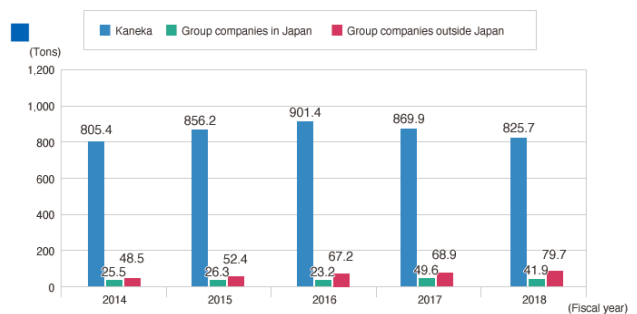
Kaneka engages in production activities in compliance with the standards specified in the Air Pollution Control Act and the Water Pollution Control Act as well as the criteria included in agreements made with local governments.

Regarding the atmosphere, SOx emission levels for Kaneka in fiscal 2018 increased, while NOx and soot and dust emissions decreased. In water, there was a decrease in COD emissions and an increase in SS emissions at Kaneka. At Group companies outside Japan, water consumption and COD emissions increased associated with a rise in production output.

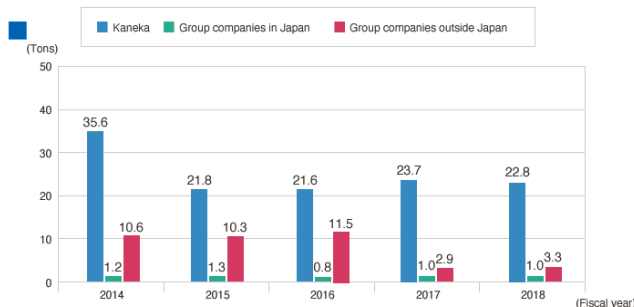
SOx Emissions



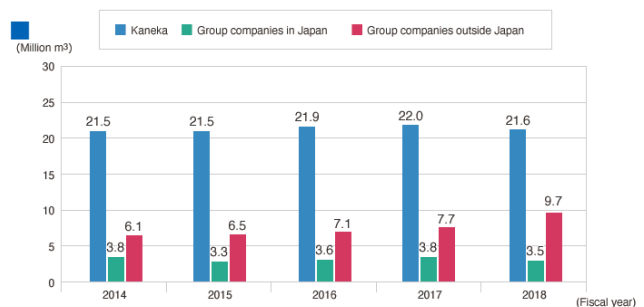
NOx Emissions



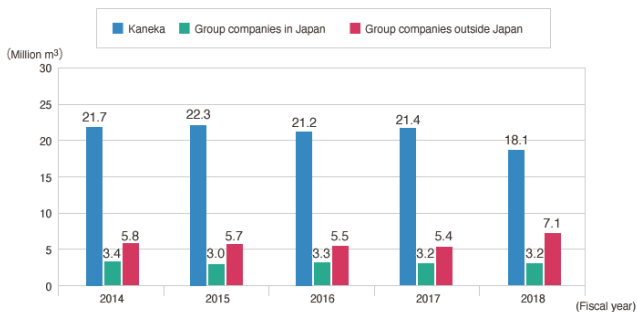
Soot and Dust Emissions



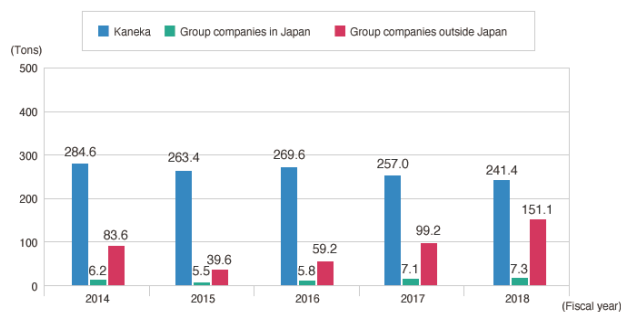
Water Consumption (\*1)



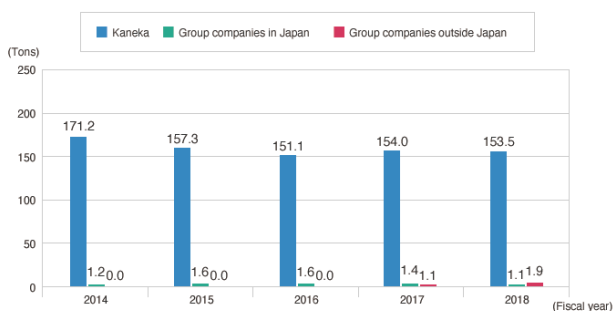
## Wastewater Discharges (\*1)



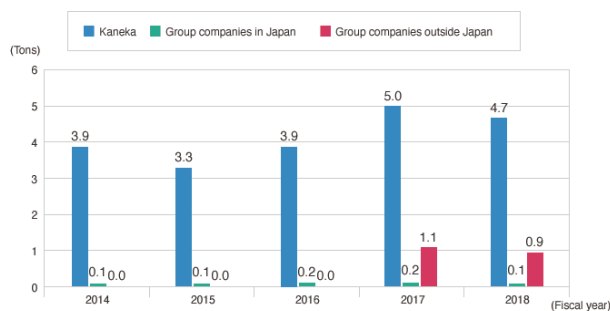
## COD in Wastewater (\*1)



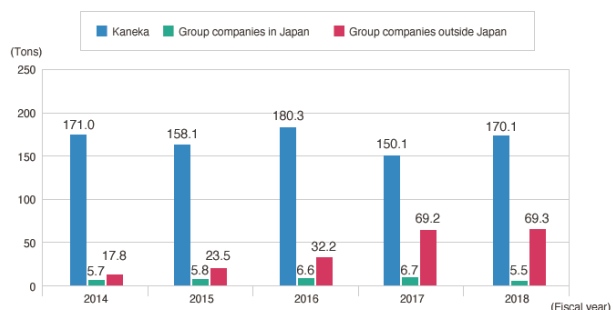
## Nitrogen in Wastewater (\*1)



## Phosphorous in Wastewater (\*1)



## Suspended solids in Wastewater (\*1)



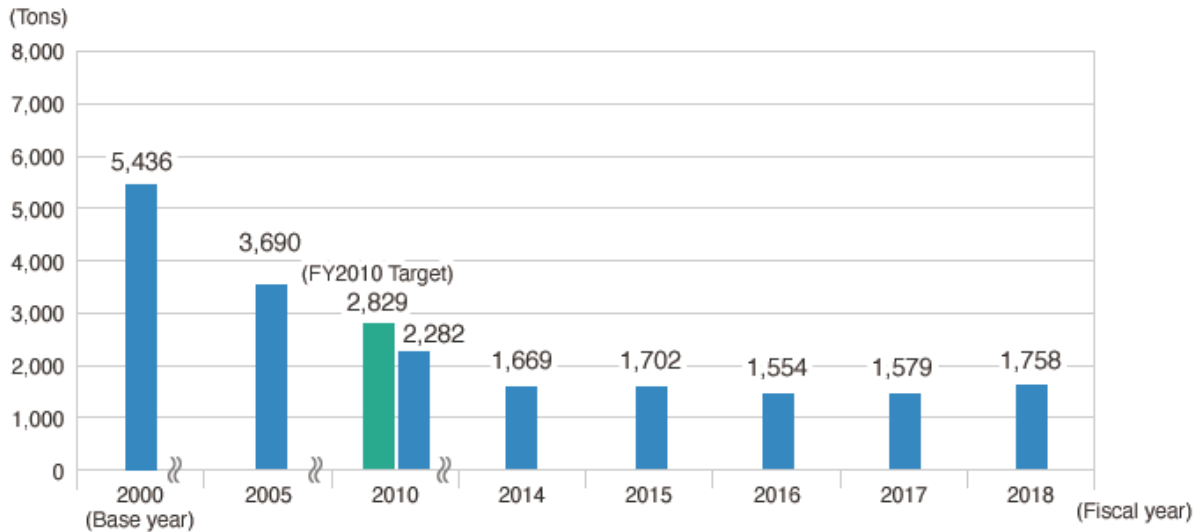
\*1 From fiscal 2015, our water consumption and wastewater volume include those generated from non-manufacturing facilities other than the plant department.

## Voluntary Plan to Cut VOC Discharge

We are committed to reducing the discharge of VOCs (\*2), which are known to cause photochemical smog. In fiscal 2018, total discharge was 1,758 tons, an increase of 11% from the previous fiscal year, due to a rise in product production volume. We will continue our efforts to reduce VOC discharge.

\*2 Volatile Organic Compounds (VOCs) are organic chemical substances that cause suspended particulate matter and photochemical oxidants.

## VOC Discharge: Voluntary Plan and Performance

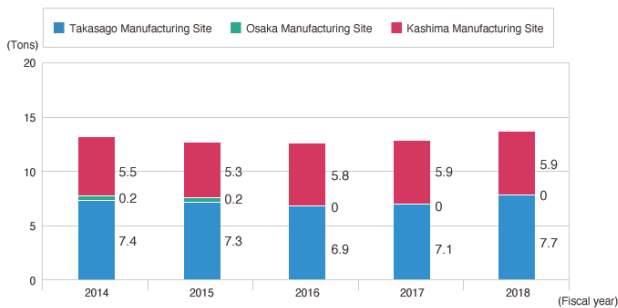


## Hazardous Atmospheric Pollutants

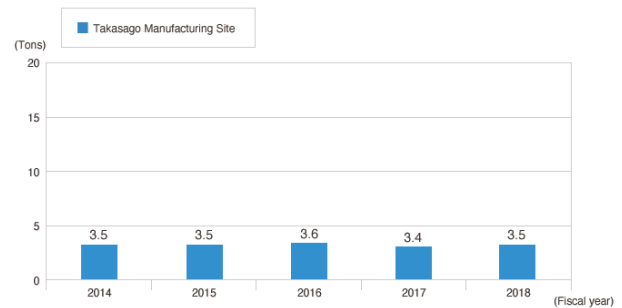
Total emissions in fiscal 2018 of six hazardous atmospheric pollutants (shown by manufacturing site in the following graphs) were 22.5 tons, which represented a year-on-year decrease of 1.5%. The difference in product type mix resulted in an increase in chloroethylene emissions. However, a decline in dichloromethane and 1,3-butadiene emissions caused by a reduction in product production volume contributed to lowering total emissions.

We will continue to make efforts to control total emissions for environmental impact reduction.

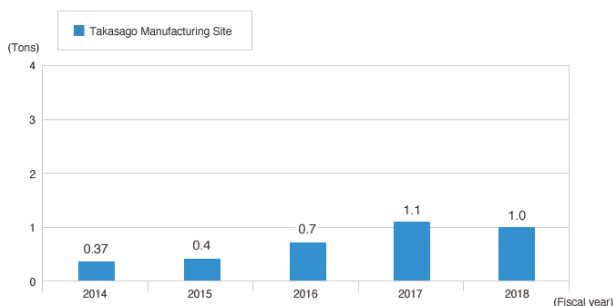
### Chloroethylene



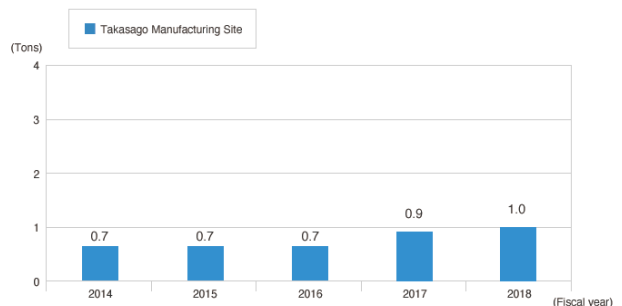
### 1,2-Dichloroethane



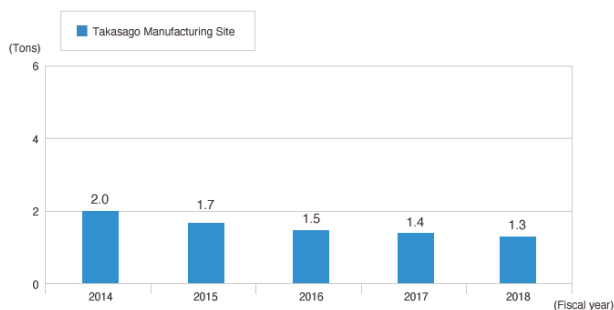
### Chloroform



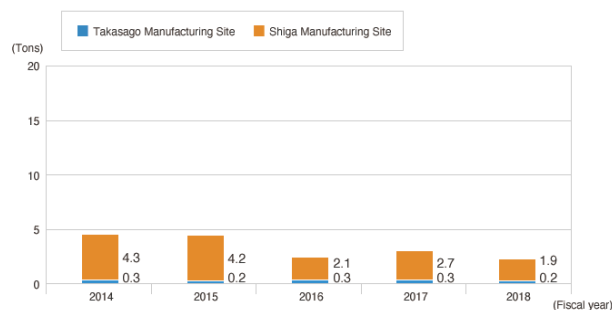
### Acrylonitrile



## ■ 1,3-Butadiene



## ■ Dichloromethane



## PRTR Discharge

In fiscal 2018, Kaneka's total discharge of substances subject to the PRTR was 82.3 tons, an increase of 2.2 tons from the previous fiscal year. The total discharge by Group companies in Japan was 101.4 tons, an increase of 11.4 tons compared to the previous fiscal year.

## ■ Fiscal 2018 Kaneka Emissions Subject to the Pollutant Release and Transfer Register Law (Kilograms)

	Designated Number under Ordinance	Chemical Substances	Fiscal 2018						Fiscal 2017
			Emissions					Transferred	Emissions
			Emissions	Discharges into Public Waterways	Discharges into Soil	Internal Landfill	Total	Total	Total
Large Discharges of 10 Substances	94	Chloroethylene (vinyl chloride)	13,500	110	0	0	13,610	960	13,010
	392	N-hexane	13,500	0	0	0	13,500	192,332	13,400
	275	Sodium dodecyl sulfate	0	8,300	0	0	8,300	0	8,400
	240	Styrene	5,800	40	0	0	5,840	7,860	5,532
	420	Methyl methacrylate	5,600	6	0	0	5,606	10	5,403
	232	N,N-dimethylformamide	3,900	1,300	0	0	5,200	310,000	4,300
	7	N-butyl acrylate	4,360	0	0	0	4,360	3,630	3,950
	134	Vinyl acetate	4,100	220	0	0	4,320	0	4,060
	157	1,2-dichloroethane	3,400	50	0	0	3,450	0	3,430
	336	Hydroquinone	0	2,300	0	0	2,300	0	2,600
Total Other than the 10 Substances Above			10,088	5,690	0	0	15,778	110,608	15,941
Grand Total for All Substances			64,248	18,016	0	0	82,264	625,400	80,026

\* Of the 462 substances subject to the PRTR, Kaneka reports about 64 items.

■ Fiscal 2018 Group Company in Japan Emissions Subject to the Pollutant Release and Transfer Register Law

(Kilograms)

	Designated Number under Ordinance	Chemical Substances	Fiscal 2018						Fiscal 2017
			Emissions					Transferred	Emissions
			Atmospheric Emissions	Discharges into Public Waterways	Discharges into Soil	Internal Landfill	Total	Total	Total
Large Discharges of 10 Substances	232	N,N-dimethylformamide	54,005	0	0	0	54,005	10,340	47,020
	300	Toluene	28,731	0	0	0	28,731	445,839	21,657
	186	Dichloromethane (methylene dichloride)	11,703	0	0	0	11,703	205,897	9,663
	296	1,2,4-trimethylbenzene	2,359	0	0	0	2,359	0	2,421
	80	Xylene	2,187	0	0	0	2,187	0	4,644
	56	Ethylene oxide	1,165	0	0	0	1,165	0	616
	355	Bis (2-ethylhexyl) phthalate (DEHP)	547	40	0	0	587	74,699	105
	213	N,N-dimethylacetamide	300	0	0	0	300	15,000	1,700
	392	N-hexane	210	0	0	0	210	4,135	1,700
	127	Chloroform	150	0	0	0	150	1,400	525
Total Other than the 10 Substances Above			1	1	0	0	2	16,439	0
Grand Total for All Substances			101,358	41	0	0	101,399	773,749	90,050

\* Of the 462 substances subject to the PRTR, group companies in Japan reports about 31 items. Amounts reported here may not fully match, due to rounding.

## CHECK & ACT

We are working to reduce environmental impacts on air and water quality and ensure rapid response to any abnormality. The increase in discharge by Kaneka and Group companies in Japan is mainly due to increased production of products using N,N-dimethylformamide. We will continue our efforts to reduce the discharge of chemical substances.

# Environment

## Reducing Waste and Recycling Resources

Through pursuing the 3Rs (reduce, reuse and recycle) aimed at the reduction and recycling of industrial waste from our operations, Kaneka has been able to achieve zero emissions (\*1) for 13 consecutive years. We are also working toward all group companies in Japan being able to achieve zero emissions.

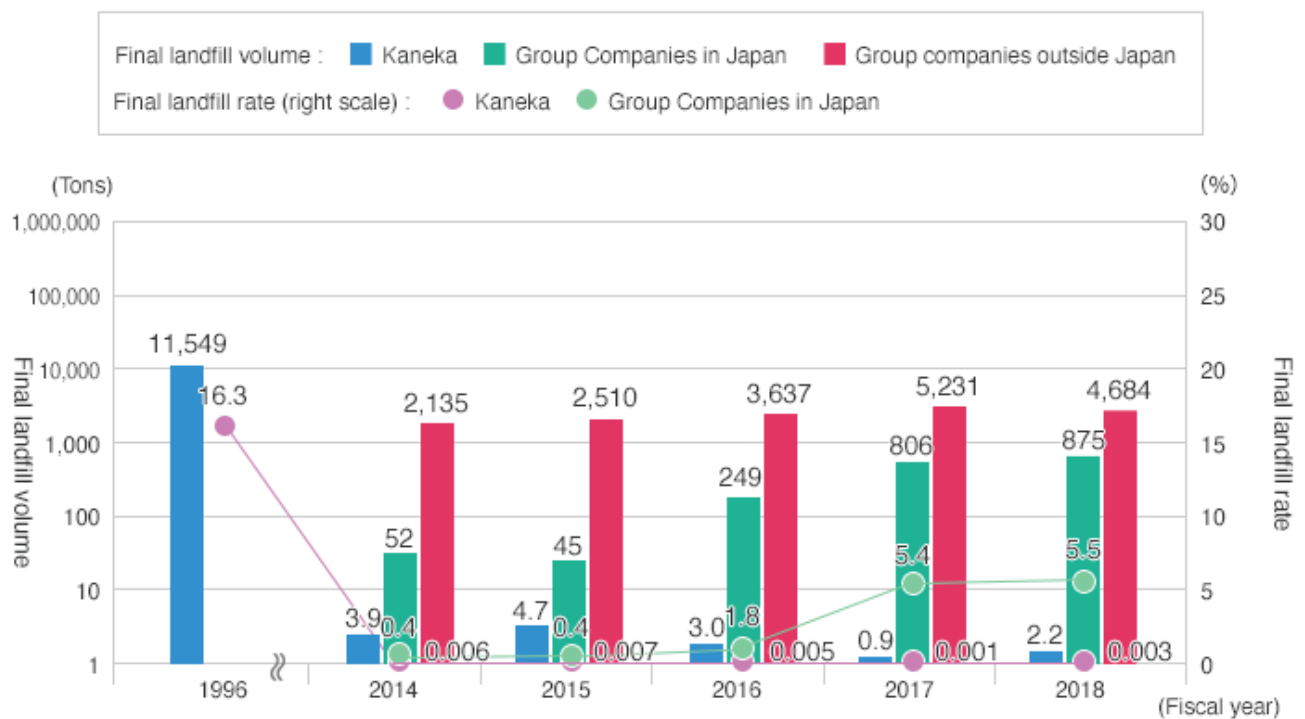
\*1 Zero emission defined by Kaneka: The final landfill waste must be less than 0.5% of the generated waste.

### Cutting Waste Sent to Landfill

We effectively achieved zero emissions in fiscal 2018, with a final landfill volume for Kaneka of 2.2 tons, equivalent to a final landfill rate of 0.003%.

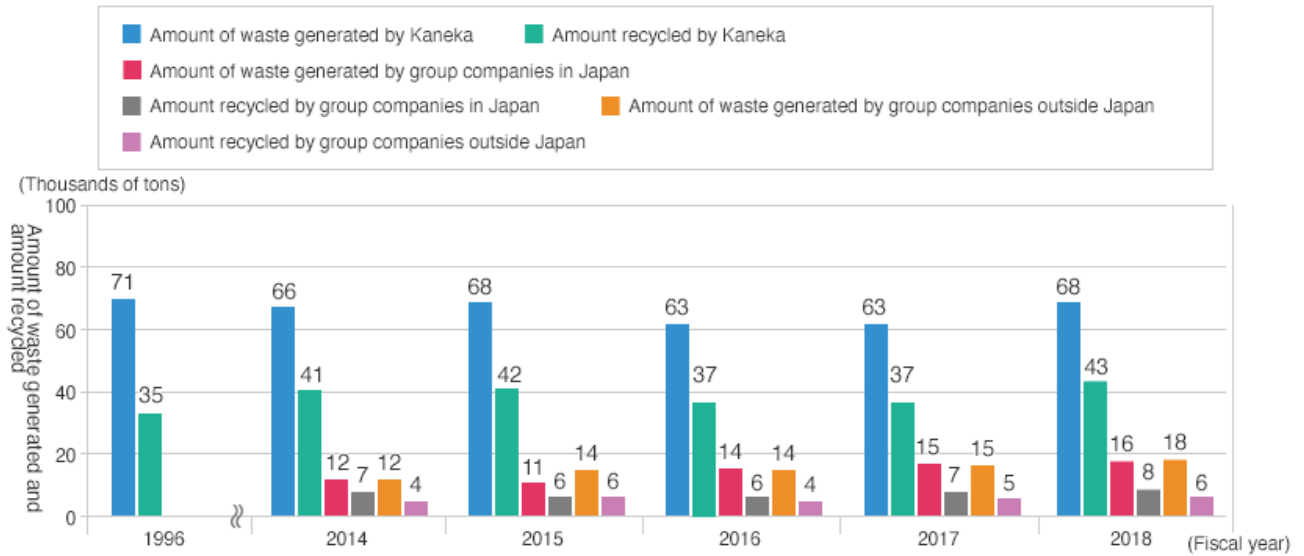
The final landfill rate of 46 Group companies in Japan in fiscal 2018 failed to achieve zero emissions, with a rate of 5.5%, since emission improvements were not fully realized partly due to China's trade embargo on waste plastics.

#### ■ Volume and Ratio of Waste sent to Landfill

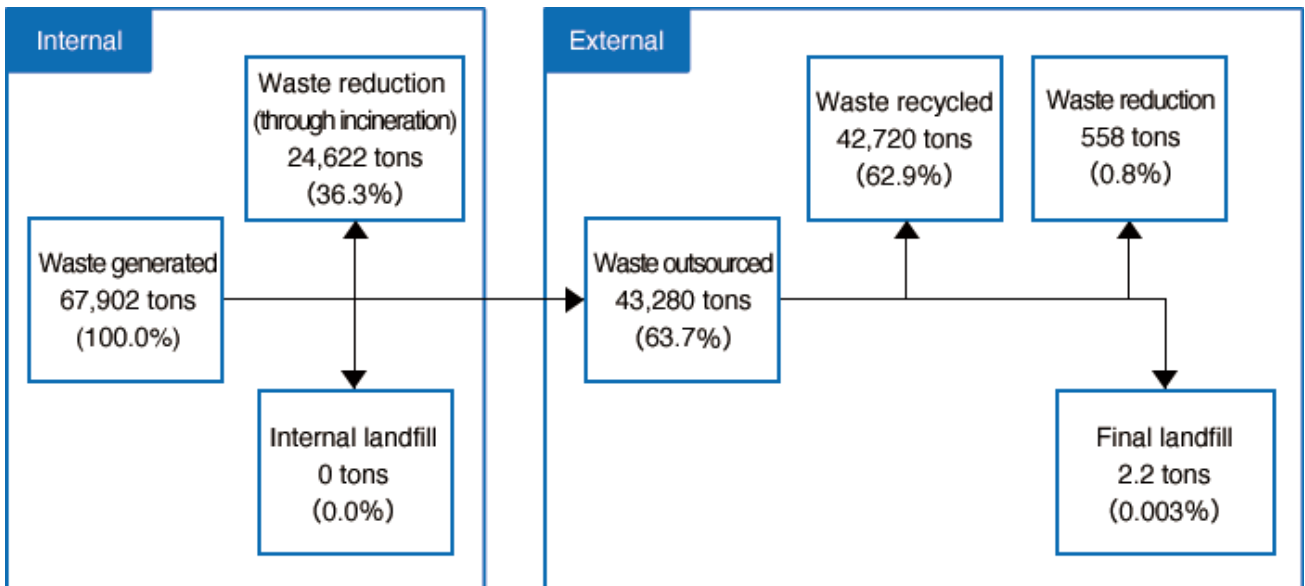




## Waste Generated and Recycled



## Waste Flow: From Generation to Landfill (FY 2018 actual)



## Proper Disposal of Industrial Waste

We conduct regular site visits of our waste processing contractors, and carry out inspections based on a checklist to confirm that waste is being processed in the proper manner.

## 3R Initiatives

Because reducing waste leads to improving global sustainability by means of resource savings, cost reduction, as well as CO<sub>2</sub> emissions reduction, Kaneka is pursuing waste reduction on a company-wide basis.

We at Kaneka and Group companies in Japan are pursuing activities at each of our production facilities, mainly through the "3R" approach to achieve waste reduction and recycling of materials.

We also facilitate continuous improvement activities through process analysis using Material Flow Cost Accounting (MFCA).

## Environment

### Biodiversity

Considering the impacts of our businesses on ecosystems, we at Kaneka strive to develop technologies, materials and products that have less environmental impacts, as well as to mitigate environmental impacts of our production.

As part of our corporate social responsibility efforts, we also collaborate with stakeholders outside the company in biodiversity conservation activities.

#### Partnership for Biodiversity Conservation

We join the following initiatives.

- Promotion Partners of the Declaration of Biodiversity by Keidanren
- Japan Business and Biodiversity Partnership

#### Takasago Manufacturing Site “Kaneka Forestry for the Future”

Since 2012, we have been involved in the Kaneka Forestry for the Future project aimed at preserving a private forest. Employees at the Takasago Manufacturing Site have helped to protect a forest of roughly 15 hectares in Taka Town, Hyogo.

Since 2013, training of newly hired employees has been part of the project. Assisting each other on the forest terrain in cutting and transporting timber, the participants build solidarity and teamwork.

In April 2018, 59 employees, mainly newly hired, carried out tree thinning, and 53 employees and their family members participated in another session in November. The carbon sink since the start of the project amounts to 1.93 tons-CO<sub>2</sub>. We will continue this private forest preservation project.



Timber felling through cooperation among newly hired employees



## Osaka Manufacturing Site “Settsu-no-mori Kaneka Biotope”

Since 2012, we have operated the Settsu-no-mori Kaneka Biotope(\*) on the premises of the Osaka Manufacturing Site in collaboration with the Settsu Firefly Society, to create a firefly habitat in Settsu City. When fireflies appear, we hold a firefly viewing gathering, inviting local residents.

In 2018, the biotope was open to the public for firefly viewing from May 19 to 27, and 1,169 local residents enjoyed the dance of the fireflies in flight. From 2017, we have held an ensemble concert by the Japan Century Symphony Orchestra at the Osaka Manufacturing Site during the firefly viewing period. We will continue our activities as a plant open to the local community.

\* Biotope: A place where organisms live as they do in nature. In human environments such as cities, biotopes are artificial environments created to regenerate and preserve a natural habit.



An adult firefly observed in the biotope at the Osaka Manufacturing Site



“Firefly Evening Concert”

## Shiga Manufacturing Site “Walnut School”

We have joined the Steering Committee of the Walnut School launched to conserve the Konooka Biotope, located next to the Shiga Manufacturing Site.

The Konooka Biotope is a habitat of diverse creatures. Established as a collaborative effort by Shiga Prefecture, Otsu City, and local community members including employees at the Shiga Manufacturing Site, the Walnut School works to preserve this precious natural environment for future generations. Its regular activities include grass mowing, sidewalk maintenance, and the updating of tree signs. It also holds seasonal nature observation gatherings three times a year. The gatherings provide valuable learning opportunities for children to observe rare plants, wild birds, and insects in the biotope and to understand its importance.

We will continue to contribute to the conservation of the beautiful natural environment of Lake Biwa.



Nature observation gathering

# Safety / Quality

## Management Approach

### Basic Policy

Placing the top priority for management on safety, Kaneka Group works to create safe and healthy workplaces. We have set the Quality Management Regulations to ensure product safety.

### Policy

#### Basic Policies for Responsible Care

**1. Protect the natural ecosystem and reduce environmental impact**

Focusing on the impact of corporate activities on the global environment and the ecosystem, we endeavor to reduce environmental impact and promote resource conservation and energy saving throughout the lifecycle of products.

**2. Offer safe products and information**

We endeavor to offer products that are safe to distribute and use, and to provide adequate information on the products such as instructions on how to use and handle products correctly.

**3. Develop products and technologies in consideration of the environment and safety**

Upon the development of new products, we give consideration to the environment and safety throughout the lifecycle of the products to the greatest extent possible, and endeavor to develop products and technologies with low environmental impact.

**4. Reduce waste and promote the recycling of plastics**

We reduce waste associated with manufacturing and its processes. We actively develop technologies for the adequate disposal or recycling of plastic waste concerning our products in cooperation with relevant industries, and endeavor to dispose of and recycle waste in a proper manner.

**5. Enhance process safety, disaster-prevention, and occupational safety and health**

Safety and disaster prevention constitute the foundations of the local community's trust, and occupational health and safety are issues that need to be fulfilled by chemical companies. We persistently strive to make improvements in these areas.

## 6. Win public confidence

From the management to every employee, all our members shall act in compliance with laws, regulations, standards, etc. relating to environment and safety both at home and abroad. Our approach to Responsible Care as such shall be publicized accurately to the public, in hope of rightfully gaining public recognition and confidence.

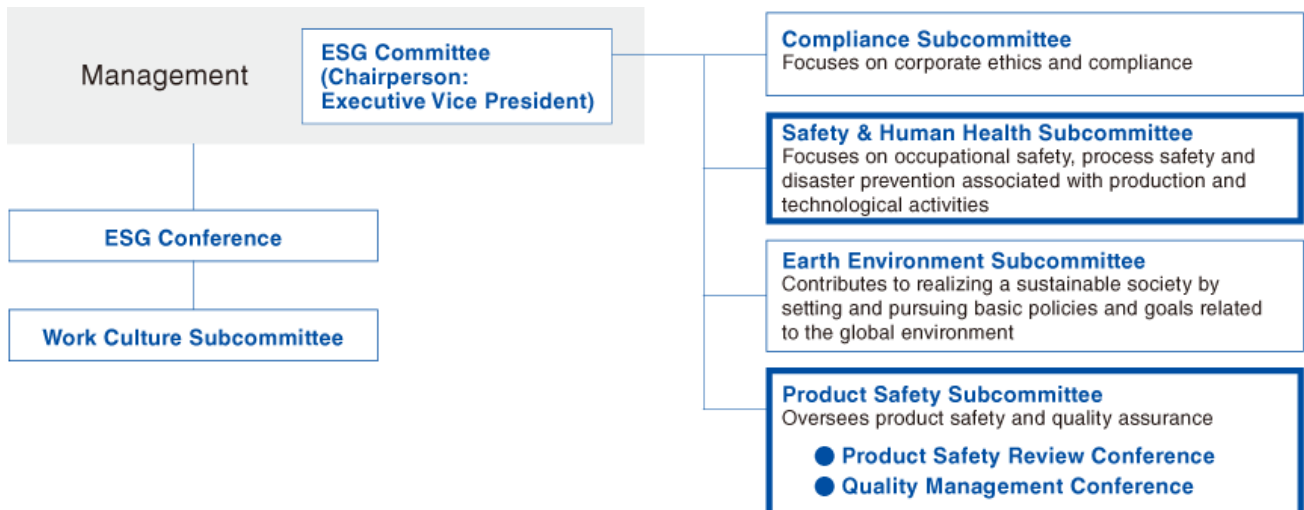
## Promotion System

As the implementation bodies of the Product Safety Subcommittee, the Product Safety Review Conference and the Quality Management Conference are responsible for all matters relating to product safety and quality assurance within the Kaneka Group.

For safety, we have established the Basic Safety Policies, under which all employees as well as all persons working at the Kaneka Group and our partner companies aim to eliminate accidents and disasters.

To share the importance of safety, members of top management inspect plants to check the on-site situation and create opportunities to talk with employees. Through our safety-related efforts, the actual safety situation is evaluated by the Safety and Human Health Subcommittee.

### ■ Diagram of Promotion System



## Safety / Quality

### Product Responsibility

#### Quality Management

We at the Kaneka Group strive to benefit society and satisfy our customers, through providing a stable supply of safe and reliable products. To that end, we undertake quality management activities to ensure the safety and quality of our products at all stages of design, development, manufacturing and sales.

In fiscal 2018, related activities included the following:

- We checked product inspection implementation at all parent Manufacturing Sites and found no serious compliance violations.
- We held four Quality Management conferences, inviting persons in charge of quality management in each business division, to instill the policy and instructions of the Product Safety Subcommittee, exchange views, and share information on product quality.
- We undertook a range of activities to build the capacity of our employees, including through outside seminars and in-house lectures by external experts.

#### Product Safety Review Conference

Due to expanded business operations and diversified activities of the Group, we need to conduct an increasing number of reviews of our new services and products targeted at general consumers. To respond to emerging opportunities in a timely and speedy manner, in fiscal 2018 the Product Safety Review Conference and its administration office carried out related pre-consultations (hearings).

#### Chemical Substance Management

Internationally, regulatory systems are becoming more stringent in order to achieve appropriate management of chemical substances related to consumer products. We strictly follow Japanese and international laws and regulations, and also actively offer information for the proper handling of our products, through displaying the Globally Harmonized System of Classification and Labelling of Chemicals (GHS (\*1)) labels and providing a safety data sheet for products.

\*1 GHS: A worldwide system for classifying and labelling chemicals according to their hazardous properties



## Audits and Inspections

Companies within the Kaneka Group regularly undergo reviews and audits by external organizations, based on established standards and criteria such as the ISO 9001 standards.

In addition, we are working to improve our performance through ESG safety and quality inspections and internal auditing.

In fiscal 2018, related activities included the following:

- We conducted an inspection with external experts in the fields of functional food and food, electrical and electronic materials, and high-performance resin.
- We continued to clarify the strengths and weaknesses of our product quality through quantitative evaluation and conducted an audit at all Group companies in Japan through self-inspection using an audit checklist.
- We continued to develop and train internal auditors to further improve internal audit capabilities.

## CHECK & ACT

Implementation of internal audits led to enhancing the self-inspection and improvement capabilities of each Group company.

We will optimize the quality management system with the Product Safety Subcommittee serving as a center and through the improvement of frontline execution.

## Certification Acquisition Status

### ■ ISO 9001 Certification of Kaneka and Group Companies

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Vinyls and Chlor-Alkali SV	Caustic soda, hydrochloric acid, sodium hypochlorite, liquid chlorine, vinyl chloride monomers, polyvinyl chloride, polyvinyl chloride paste, heat-resistant polyvinyl chloride, and OXY chlorination catalyst	JCQA / JCQA-1263

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Performance Polymers (MOD) SV	Impact modifiers (Kane Ace B etc.), processing aids and specialty additives (Kane Ace PA etc.), toughener for thermosetting resins (Kane Ace MX), engineering resin for injection molding (Kaneka Hyperite), zero birefringence PMMA material (Kaneka Hyperite), and Acrylic film (Sunduren)	LRQA / 10189365
Performance Polymers (MS) SV	Silyl-terminated polyether (Kaneka MS Polymer etc.), acrylic silicon polymer (Kaneka Gemlac), terminally reactive liquid acrylic polymer (KANEKA XMAP etc.), and isobutylene-based thermoplastic elastomer (SIBSTAR)	
Foam & Residential Techs SV	Bead technique-based polyolefin resins and molded products (Eperan, Eperan PP), bead technique-based expandable polystyrene (Kanepearl), and extruded polystyrene foam board (Kanelite)	JCQA / JCQA-0673
Hokkaido Kanelite Co., Ltd.		
Kyushu Kanelite Co., Ltd.		
E & I Technology SV	Ultra-heat-resistant polyimide films (Apical, Pixeo), optical film (Elmech), bonded magnets (Kaneka Flux), multi-layered insulation materials, PVC pipes for underground electric cables, high thermal-conductive graphite sheet (Graphinity), thermal conductive elastomer, and flexible cover coat ink	LRQA / YKA0935762
	Highly heat-resistant and light-resistant resins and molded products	DNV / 01635-2006-AQ-KOB-RvA/JAB
PV & Energy management SV	Photovoltaic modules	JQA / JQA-QMA13200
Kaneka Solartech Corporation		
Kaneka Solar Marketing Corporation		
Foods & Agris SV	Margarine, shortening, edible oils and fats, edible refined oils and fats, whipped cream, concentrated milk products, modified milk, fermented milk products, flour paste, butter cream, chocolate, frozen dough, cheese, mayonnaise, cooking fillings, prepared foods, yeast, antifreeze protein, antifreeze polysaccharide, and seasoning materials	JQA / JQA-QMA10274
Takasago Manufacturing Site Foods Manufacturing Department		
Kaneka Foods Manufacturing Corporation		
Tokyo Kaneka Foods Manufacturing Corporation		

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Nagashima Shokuhin Co., Ltd.		
Kaneka Foods Corporation	Purchase, design, sales, technological services, and quality assurance for processed foods and raw materials, and sales of food processing machinery	
NJF Co., Ltd.	Production instruction of processing contractors	
OLED Business Development Project	Organic electroluminescent lighting	JMAQA / JMAQA-2532
OLED Aomori Co., Ltd.		
Showa Kaseikogyo Co., Ltd.	Plastic compounds	ASR / Q0556
Tatsuta Chemical Co., Ltd.	Plastic film, plastic sheet	BVJ / 3882662
Sanvic Inc.	Synthetic resin sheets and films	JMAQA / JMAQA-1824
Tobu Chemical Co., Ltd.	Plastic wallpaper, vinyl chloride resin wallpaper	LRQA / YKA0958154
Cemedine Co., Ltd.	Development and manufacture of general and industrial adhesives, sealants and special paints	JCQA / JCQA-0386
Kanto Styrene Co., Ltd.	Polystyrene foam molded products	JACO / QC03J0233
Kaneka Foam Plastics Co., Ltd. Moka Plant	Bead technique-based polyolefin molded products	ASR / Q1919
Kaneka Foam Plastics Co., Ltd. Kyusyu Plant	Bead technique-based polyolefin molded products	JACO / QC17J0033
Tamai Kasei Co., Ltd.	A series of operations related to order receipt, manufacturing, inspection, and shipping of Phase Change Material (PCM) (Patthermo)	ASR / Q4131
Vienex Corporation	Electronic products	JSA / JSAQ2593
Shinka Shokuhin Co., Ltd.,	Modifiers for bread and confectionery, processed fruit products, outsourced products (margarine, cooking fillings, modified milk)	JQA / JQA-QMA15323
Taiyo Yushi Corporation	Margarine, shortening, edible refined oils and fats, edible vegetable oils and fats, refined lard, other edible oils and fats, processed fats, dairy products, and food additives	JQA / JQA-QMA14671
Kaneka Sun Spice Corporation	(1) Spices and secondary processed products incorporating spices (2) Purchase and sales of general processed foods and their ingredients	JQA / JQA-QMA11351

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Tochigi Kaneka Corporation	Bonded magnets (Kaneka Flux), multilayer insulation materials, and high thermal-conductive graphite sheet (Graphinity)	LRQA / YKA0958035
Kaneka Belgium N.V.	Modifier resins (Kane Ace), bead technique-based polyolefins (Eperan, Eperan PP), modified silicone polymer (Kaneka MS Polymer), and acrylic sol	AIB-VINCOTTE / BE-91 QMS 028i
Kaneka North America LLC	Ultra-heat-resistant polyimide films (Apical), modifier resins (Kane Ace and Kaneka Telalloy), heat-resistant vinyl chloride resins, and modified silicone polymers (Kaneka MS Polymer)	BSI / FM72722
Kaneka (Malaysia) Sdn. Bhd.	Modifier resins (Kane Ace)	SIRIM QAS / QMS 00900
Kaneka Apical Malaysia Sdn. Bhd.	Ultra-heat-resistant polyimide films (Apical)	SIRIM QAS / AR6269
	High thermal-conductive graphite sheet (Graphinity)	SIRIM QAS / AR6270
Kaneka Eperan Sdn. Bhd.	Bead technique-based polyolefins (Eperan, Eperan PP)	SIRIM QAS / AR2598
Kaneka Paste Polymers Sdn. Bhd.	Vinyl chloride paste resin	SIRIM QAS / AR2321
Kaneka Eperan (Suzhou) Co., Ltd.	Bead technique-based polyolefins (Eperan, Eperan PP)	SGS / CN18/20031
Kaneka (Foshan) High Performance Materials Co., Ltd.	Bead technique-based polyolefins (Eperan, Eperan PP)	Beijing East Allreach certification Center Co., Ltd. / USA16Q27833R0S
Kaneka Innovative Fibers Sdn. Bhd.	Synthetic fibers	SIRIM QAS / AR2321
KSS Vietnam Co., Ltd.	Processed spices, herbs, dried vegetables, and mixed spices	Intertek Certification Limited / CPRJ-2015-040996
Kaneka Eurogentec S.A.	Products and services for research and development in life science	BSI / FS 638601
Anaspec Inc.	Peptides, antibodies, synthetic resins, amino acids, and reagents for research	SQA/09.357.1

■ ISO 13485 Certification of Kaneka and Group Companies (\*2)

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Medical Devices SV	Lixelle, liposorber, catheters, silascon, and ED coil	TÜV SÜD / Q5 024736 0069
Kaneka Medix Corporation		
Kaneka Pharma Vietnam Co., Ltd.		
River Seiko Corporation		
Kaneka Eurogentec S.A.	<i>In vitro</i> diagnostic oligonucleotides	BSI / MD 638600

\*2 ISO 13485 is an international standard covering the comprehensive management system requirements for the design and manufacture of medical equipment.

■ ISO 22000 Certification of Kaneka and Group Companies (\*3)

Production Unit or Group Company	Major Products	Registry Organization and Number
Takasago Manufacturing Site Pharmaceutical Department	Coenzyme Q10 (Kaneka Q10, Kaneka QH)	SGS / JP10 / 030379
Kaneka Sun Spice Corporation	Spices and secondary processed products incorporating spices	JQA / JQA-FS0123
KSS Vietnam Co., Ltd.	Processing of spices, herbs, dried vegetables, and mixed spices	Intertek Certification Limited / 38191405003

\*3 ISO 22000 is an international standard for food safety management systems.

■ Food Safety System Certification 22000 (FSSC 22000) Certification of Kaneka and Group Companies (\*4)

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Foods & Agris SV	Margarine, shortening, flour paste, butter cream, edible oils and fats, edible refined oils and fats, concentrated milk products, modified milk, cheese, whipped cream, yeast, fermented milk products, antifreeze protein, antifreeze polysaccharide, and seasoning materials	JQA / JQA-FC0047
Takasago Manufacturing Site Foods Manufacturing Department	Margarine, shortening, edible oils and fats, edible refined oils and fats, whipped cream, concentrated milk products, modified milk, and yeast	JQA / JQA-FC0047-1
Kaneka Foods Manufacturing Corporation	Margarine, flour paste, buttercream, cheese, fermented milk products, antifreeze protein, antifreeze polysaccharide, and seasoning materials	JQA / JQA-FC0047-2
Tokyo Kaneka Foods Manufacturing Corporation	Margarine, shortening, flour paste, buttercream, and whipped cream	JQA / JQA-FC0047-3
Taiyo Yushi Corporation	Margarine, shortening, edible refined oils and fats, edible vegetable oils and fats, refined lard, other edible oils and fats, processed fats, and dairy products (butter)	JQA / JQA-FC0044
Nagashima Shokuhin Co., Ltd.	Frozen dough (pies and confectionery)	JQA / JQA-FC0109

\*4 FSSC22000 is a sector for food safety management system, which based on the ISO 22000 with the addition of ISO/TS 22002-1 requirements.

■ ISO 22716 Certification of Group Companies (\*5)

Group Company	Major Products	Registry Organization and Number
Taiyo Yushi Corporation	Shampoos, conditioners, body soaps, and hand creams	BVJ / 3889080

\*5 ISO 22716 is guidelines on the Good Manufacturing Practices (GMP) of cosmetic products.

## Safety / Quality

### Process Safety and Disaster Prevention

#### Targeting Zero Process Accidents

Safety is a top management priority for the Kaneka Group, with various initiatives aimed at completely eliminating process accidents.

Key challenges worked on in fiscal 2018 were: (1) promoting establishment of safety efforts on a global scale, (2) enhancing awareness of danger and risk identification capabilities, (3) familiarizing the operation of company-wide risk management, and (4) creating a corporate culture where employees enjoy good health and feel motivated.

Although 12 process accidents, including minor accidents, occurred in fiscal 2018, there was no human suffering or harm to local residents. The causes of the accidents were quickly shared across the Kaneka Group to prevent recurrence. A large number of accidents occurred at plants of Group companies outside Japan; therefore, the entire Kaneka Group is working on improving the level of safety techniques, providing on-site safety inspection and guidance at overseas plants. We will continue these activities to promote safe and secure business operations.

#### Basic Safety Policies

- **Safety forms our management foundation, and is the basis of all corporate activities.**  
We take action with priority given to ensuring safety in all activities in the company.
- **Safety is the foundation of local and worldwide communities' confidence in Kaneka.**  
We do our best to develop their trust.
- **Safety is based on our belief that "All accidents can be prevented."**  
We always move forward without being satisfied with lukewarm results.
- **Safety is the responsibility of every employee in accordance with his/her duties.**  
We fulfill our responsibilities by mutually clarifying the duties we have assumed.
- **Safety must be maintained continuously.**  
We ensure safety through steady efforts on a daily basis.

## Implementation of Disaster Drills

Disaster drills are conducted annually in cooperation with local governments at all parent Manufacturing Sites to improve disaster coping skills in case of emergency situations.

In fiscal 2018, we implemented comprehensive disaster drills based on a scenario of a large-scale earthquake followed by a fire caused by hazardous material leakage.

### ■ Comprehensive Disaster Drills

Manufacturing Site	Date	No. of Participants	Details
Takasago Manufacturing Site	December 14, 2018	2,079	The Manufacturing Site held a joint firefighting drill with the Takasago City Fire Department based on the scenario of an earthquake resulting in a fire caused by combustible gas leakage.
Osaka Manufacturing Site	October 25, 2018	1,101	The Manufacturing Site held a joint firefighting drill with the Settsu City Fire Department based on the scenario of an earthquake resulting in a fire caused by combustible gas leakage.
Shiga Manufacturing Site	November 14, 2018	479	The Manufacturing Site held a firefighting drill based on the scenario of an earthquake resulting in a fire in a production building.
Kashima Manufacturing Site	October 18, 2018	130	The Manufacturing Site held a firefighting drill based on the scenario of an earthquake resulting in a fire caused by high-pressure gas leakage (West area).
	November 17, 2018	230	The Manufacturing Site held a damage expansion prevention drill with the East Industrial Complex Joint Facility Team on the scenario of an earthquake resulting in high-pressure gas leakage (East area).



Comprehensive disaster drill held in cooperation with the local government



## Plant Safety Initiatives

We held a HAZOP(\*) workshop, inviting external experts, to improve the risk assessment level of safety evaluators. We have also established a technique for assessing the risk of accidental chemical mixing and a method for evaluating thermal runaway in chemical reactions. We will continue to improve these safety techniques to ensure plant safety.

\* HAZOP (Hazard and Operability Studies): A hazard identification technique used for chemical plants

### CHECK & ACT

The number of process accidents remained steady. Toward further reduction of accidents, we will ensure risk assessment and intrinsic safety by setting risk assessment standards and fostering safety evaluators.

When accidents occurred, we promptly notified the relevant public fire department. However, we apologize to local residents and anyone affected by the disturbance. We will make company-wide efforts to prevent similar accidents.

## Safety / Quality

### Occupational Safety and Health

#### Occupational Safety and Health

In 2018, 12 occupational accidents occurred in the Kaneka Group, of which seven resulted in lost work time, and five did not. Although occupational accidents have been decreasing for the past five years, we have promoted safety activities in compliance with the Zero Accident Principles to boost personal safety awareness.

#### Zero Accident Principles

- **All people, you and me, are indispensable**  
We ensure everyone is working safely.  
Pledge of safety
- **Safety is everyone's responsibility**  
We do not miss sparing the time to seek safety.  
Participation in safety
- **There is no trick to safety**  
We always value a fundamental approach to it.  
Adherence to safety basics
- **Be aware of potential danger**  
We endeavor to eliminate safety risks.  
Safety in advance
- **Where there is carelessness, there is the possibility of an accident**  
We do not allow even a small chance of negligence.  
99%, yet 0%

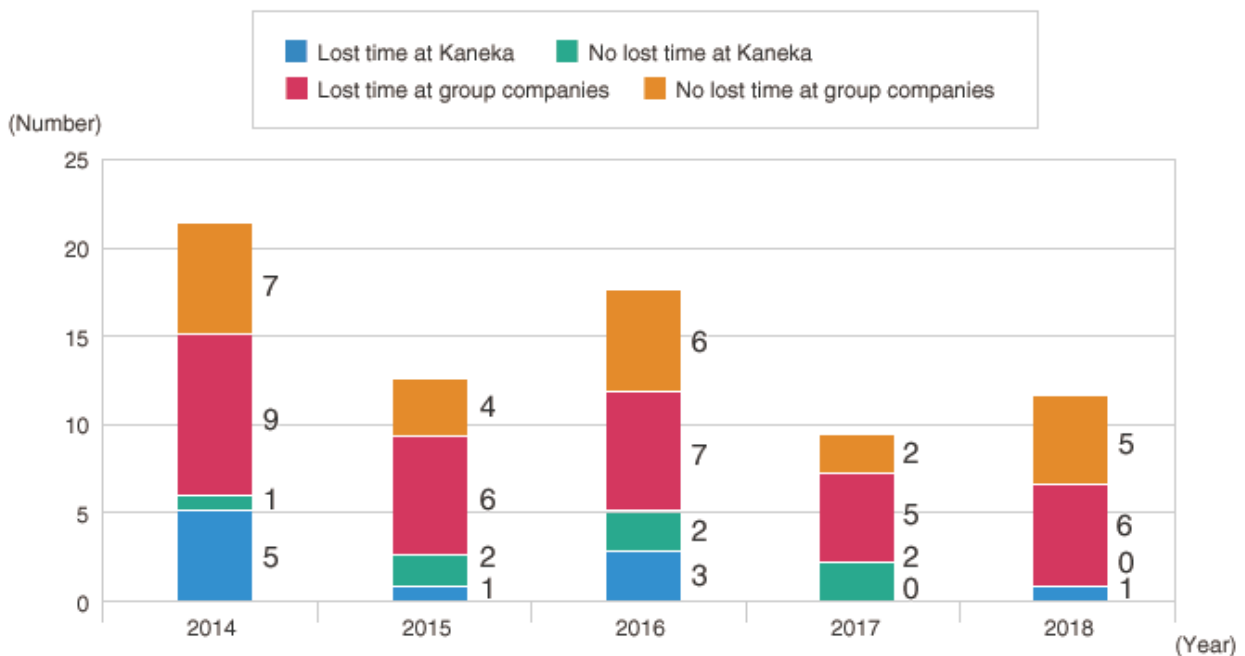
## Enhancing Our Occupational Safety and Health Management System

Our all parent Manufacturing Sites acquired Occupational Safety and Health Management System (OSHMS) certification from the Japan Industrial Safety & Health Association (JISHA) in fiscal 2007, and have continued our efforts to enhance these systems.

### OSHMS Certifications

Manufacturing Site	Location	Certification Date	Certification No.
Takasago Manufacturing Site	Hyogo	March 10, 2008	08-28-13
Osaka Manufacturing Site	Osaka	August 21, 2007	07-27-10
Shiga Manufacturing Site	Shiga	January 15, 2008	08-25-6
Kashima Manufacturing Site	Ibaraki	December 13, 2010	10-8-26

### Accidents Resulting/Not Resulting in Lost Time



\* The number of occupational accidents includes those among employees at Kaneka and partner companies working in the Kaneka Group.

■ Accident Frequency Rate and Accident Severity Rate

Area	All Kaneka Group		Kaneka		Group Companies in Japan and Overseas	
	2017	2018	2017	2018	2017	2018
Accident Frequency Rate	0.31	0.23	0.00	0.00	0.47	0.36
Accident Severity Rate	0.01	0.02	0.00	0.00	0.01	0.03

\* Accident Frequency Rate: An index that shows the frequency of occupational accidents that caused death and/or injury by indicating the number of casualties per total 1 million actual working hours  
 Accident Severity Rate: An index that shows the level of severity of occupational accidents by indicating the number of lost work days per total 1,000 working hours  
 Both rates are calculated targeting employees at Kaneka and Group companies.

## In-house Safety Commendation

Four Group companies in Japan that achieved good safety performance were commended by the President based on the internal standards.

Safety is a top management priority for the Kaneka Group. We will share excellent safety activities of individual companies across the Kaneka Group to raise safety awareness toward achieving zero accidents.



OLED Aomori Co., Ltd.

Group Company	No Accident Period (as of the end of FY 2018)
OLED Aomori Co., Ltd.	December 2012 – (6 years and 3 months)
Kaneka Kanto Styrol Co., Ltd.	December 2012 – (6 years and 3 months)
Sanvic Inc.	February 2014 – (5 years and 1 month)
Tamai Kasei Co., Ltd.	March 2011 – (8 years and 0 months)

## Mental Health Care

Mental health care activity is necessary to maintain employees' mental health. In addition to providing care to those with high stress levels, identified through stress checks (which were introduced in 2016), we continue efforts to improve the workplace environment based on the stress check results. Such efforts involve conducting stress check group analysis for each workplace, identifying problems based on the analysis results, and working to solve the identified problems.

We also provide opportunities to help employees relieve stress, including a seminar on sleep.



Seminar on how to have good quality sleep

## CHECK & ACT

In 2018, 12 occupational accidents occurred in the Kaneka Group. To achieve zero accidents, we will work to promulgate basic safety actions to all employees, improve production line management, and strengthen the risk assessment foundation.

# CSR Procurement Management Approach

## Basic Policy

We draw on our Basic Procurement Policy to engage in rational procurement that is fair, equitable, and environmentally friendly to mutually improve corporate value with our business partners.

## Policy

### Basic Procurement Policy

- We will engage in procurement activities that enhance the corporate value of both Kaneka and our business partners.
- We will endeavor to reduce environmental damage by engaging in green procurement.
- We will provide opportunities for business partners to make fair and rational transactions in consideration of quality, price, supply stability, technical development capabilities, environmental protection, and safety.
- We will abide strictly by the relevant Japanese and foreign laws and regulations.

# CSR Procurement

## CSR Procurement

### Green Procurement Based on Basic Procurement Policy

To reduce burdens on global environment, we adopted our Basic Procurement Policy, which declared our goal to pursue green procurement; this served as the foundation of our Green Procurement Standards established.

### Procurement Initiatives

Our procurement departments stay in close communication with our business partners, continually working with them to strengthen our partnerships.

Together with our business partners, we keep our eye on continually changing market conditions to create new value and to grow together.

In accordance with our Green Procurement Standards, we strive to keep up-to-date concerning the environmental activities undertaken by our business partners, and are exploring ways to make effective use of our website to share information about Kaneka's initiatives and perspectives to further promote green procurement efforts.

### Initiatives for Logistics Safety

In fiscal 2018, jointly with our transportation contractors, we carried out a year-long awareness-raising initiative on the premises to promote safety in logistics operations. It included the implementation of a risk prediction training program by the In-plant Transport Cooperation Association and checking safety behavior during loading. In addition, we monitored the status of legal compliance checks for mobile tanks and held transport accident emergency reporting drills based on specific scenarios. A simulated training on emergency handling of poisonous materials was held at the Takasago Manufacturing Site. Through continuous implementation of these activities, all staff members reaffirm how to take action in the event of accidents and the importance of prompt reporting to relevant departments, to control emergency situations.



Simulated training on emergency handling of poisonous materials (Takasago Manufacturing Site)

## CHECK & ACT

Kaneka Group continues to engage in procurement activities based on the Green Procurement Standards.



# Human Resource Strategies – Human Driven Company

## wellness and growth of individual employees as a source of innovation and value creation

Being a “Human-Driven Company” is the DNA of Kaneka. Considering that it is individual employees who generate the results and value of work and realize innovation, we are involved in various activities to ensure that employees and organizations can maintain health and achieve high productivity.

Development of leadership that lights a fire in peoples’ hearts  
 –Human resource development with a focus on Kaneka 1-on-1



- I. Set the business goals and implement
- II. Communicate with each boss about progress for goals

### Off-JT

- Hitotsubu-no Tane Momi Juku      ● Kaneka Creative Corner
- The Leadership Challenge Workshop
- Language training      ● e-Learning, etc.

### OJT



The growth of people and the results of work are like the two sides of one coin. We aim to simultaneously realize human resource development and goal achievement through Kaneka 1-on-1.

We regularly conduct workshops and coaching training programs, measure their effects, and provide feedback to improve value communication.

We also conduct training programs for employees, including those at group companies within and outside Japan, to develop future executive candidates and leaders who strongly lead businesses and operations. Some participants in the programs have been appointed to division chief and executive positions at overseas group companies.

■ Development of leaders

Program Name	Content	Fiscal 2016 No. of participants	Fiscal 2017 No. of participants	Fiscal 2018 No. of participants	Total from the start of the program No. of participants
Hitotsubu- no Tane Momi Juku	Lectures and exercises by the top management and first-class instructing staff targeted at future leaders and management personnel	13	12	12	49
Kaneka Creative Corner	Lectures and exercises by the top management and first-class instructing staff targeted at future leaders of national staff	10	12	12	34
The Leadership Challenge Workshop	Acquiring and practicing leadership skills and follow-up	(outside Japan) 102	(outside Japan) 24	(outside Japan) 21	(outside Japan) 428
		(in Japan) 197	(in Japan) 236	(in Japan) 288	(in Japan) 951

\* Aggregated data for Kaneka and group companies in and outside Japan.

## Work culture innovation

To make effective use of time, information, and human resources and maximize the productivity of organizations and employees from the perspectives of “Life in Work” and “Work in Life,” we have formed the Work Culture Committee under the ESG Conference to streamline business processes and change office environments. We also work to enhance value communication and create a robust organization where members are united toward the same purpose.

We have promoted the reform of working practices by introducing various systems that allow employees to choose a flexible working style, including the adoption of telecommuting. We have also introduced shorter and staggered work hours programs and a babysitting expense aid system to help employees achieve a better work life balance. We will create a more flexible working environment in anticipation of the continuing declining birthrate and aging population.

We will continue to review and expand existing systems and create a more employment-friendly corporate culture to ensure for all employees a satisfying work and personal life.

### Active promotion of female employees

We are trying to resolve various social issues as a solution provider. Promoting the participation of personnel with diverse values in the workplace is one of the important initiatives for this. For female employees, we have advanced efforts to increase their recruitment (employment rate of women who graduated from technical colleges and universities: 33%) and expand the range of occupational opportunities (active assignment of women to manufacturing divisions as well as R&D, sales, and staff divisions) for the past several years. We are building a corporate culture where women actively participate in the workplace and promoting the proactive appointment of female managers to expand opportunities for women to demonstrate their abilities in business and management, thereby turning ideas unique to women into solutions.

### Hiring and support of employees with various nationalities

Of approximately 11,000 employees of the Kaneka Group, approximately 3,000 with foreign nationalities are engaged in operations worldwide, playing an active role.

Under the circumstances where we are expanding our business globally, we further increase the recruitment of employees with foreign nationalities. We also focus on developing future global leaders by having them gain experience in countries other than their home country through the Study Abroad Program and the Overseas Trainee Dispatch Program.

### Employment of persons with disabilities

The employment rate of persons with disabilities in Kaneka in fiscal 2018 was 2.17%. We will expand the range of occupational opportunities to increase the recruitment of persons with disabilities, reinforce efforts to create a welcoming workplace, and support employment efforts by group companies, aiming to increase their employment rate in the entire Kaneka Group.

### Employment of senior citizens

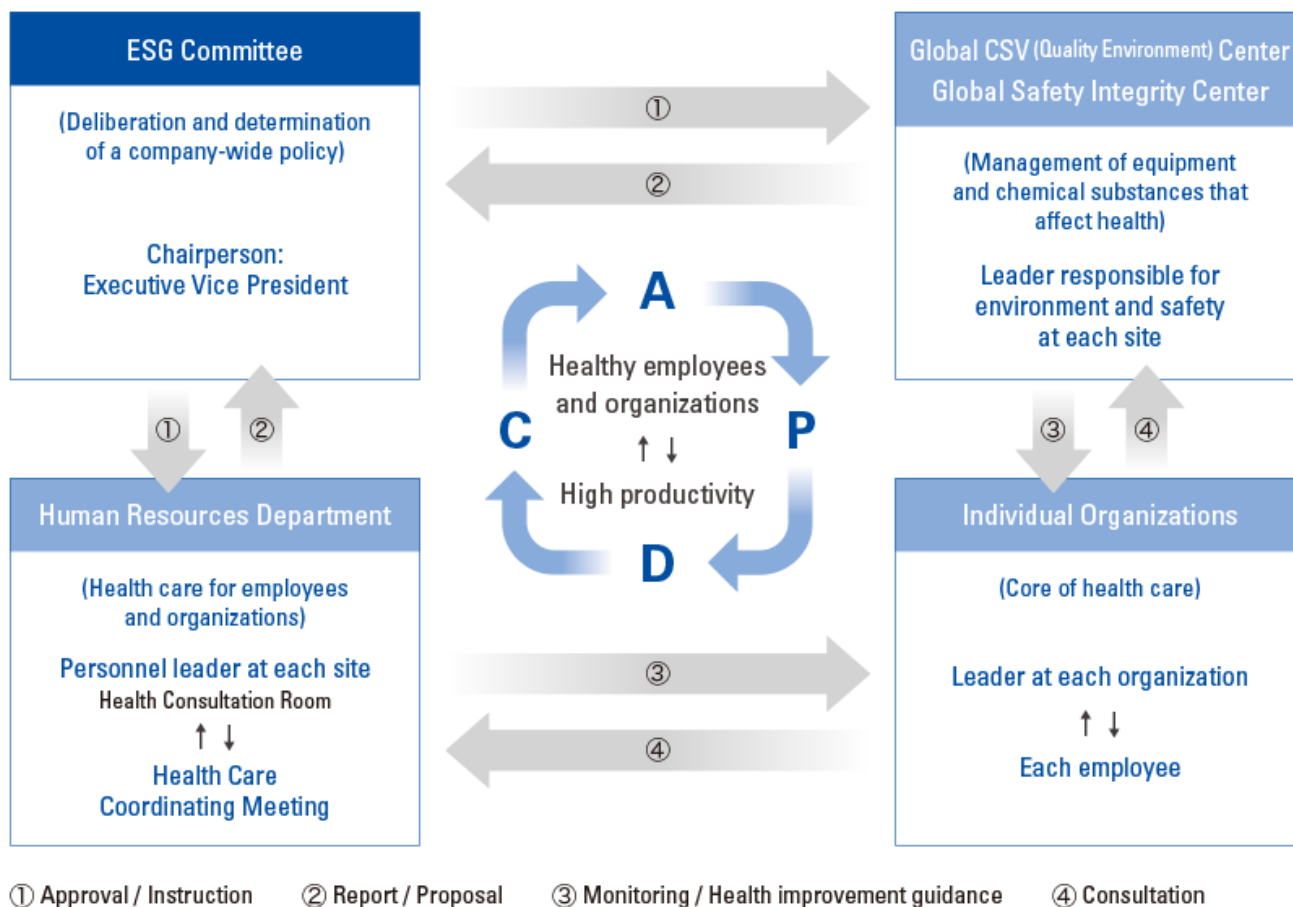
Considering senior employees after retirement age to be a great asset to the company, we accommodate those who wish to continue their employment up to age 65.

We conduct career design training for 50- and 55-year-old employees to encourage them to keep working with enthusiasm after age 60.

In anticipation of the advent of the 100-year life-span, we are planning to create a new system where senior employees can autonomously shape their careers and work with high motivation.

## Wellness of employees

### System toward health maintenance and promotion



In 2018, we established the Health Care Promotion Standards to improve the health care system on a company-wide basis.

### Provision of opportunities to become more aware of lifestyle modification

We consider it most important that all employees at the Kaneka Group and their family members lead colorful lives in good health, mentally and physically.

To this end, we provide various opportunities (contents) to help individual employees raise their health awareness and change their behavior, so that they can improve self-care awareness and establish a healthy lifestyle. Many employees actively participate in these activities.

- Toward increasing awareness of lifestyle modification, distribution of a wearable device to all interested employees so that energy intake and consumption and sleeping hours can be visualized
- Implementation of the Walking Challenge event, commending those who show excellent performance in terms of walking distance
- Introduction of healthy menus, including smart meals, at canteen
- Provision of hands-on programs, including an office yoga program and a seminar on sleep
- Abolition of office smoking areas and prohibition of smoking during working hours to eliminate passive smoking



Wearable device distributed to employees



Lifestyle visualized through application software



Office yoga program provided

## Running on a company-wide basis

We are making various efforts to encourage running to help employees enhance health awareness, maintain and improve fitness, and increase physical strength.

- Conducting a running training session and a seminar on running to support those who wish to improve their full marathon time, to start some form of exercise to improve their health, and to make running a habit
- Continuing to hold the long-distance relay race “Run, Run, Run. Kaneka,” in which employees from Kaneka group companies in Japan and overseas and our partner companies gather together

### ■ No. of participants in the race

Fiscal year	2016	2017	2018
No. of participants	950	2,031	2,288

- Sponsoring the Hokkaido Marathon



Time trial to participate in the Hokkaido Marathon



Long-distance relay race “Run, Run, Run. Kaneka 2018”

## Social Contributions

### Management Approach

#### Basic Policy

As a good corporate citizen, Kaneka Group engages in various activities to deepen stakeholder understanding, such as disaster reconstruction support, youth development, international contributions, and environmental conservation. Thereby, we work to build strong ties with communities and society as a highly open and transparent company.

## Social Contributions

### Supporting Disaster Reconstruction

#### Establishment of the KANEKA UNITED Kizuna Foundation and Support Concerning Damages from Typhoon Nos. 15/19

In fiscal 2018, Kaneka decided to move toward ESG Management. Hoping to maintain and improve employees' health, Kaneka thinks "Wellness First." Under this management philosophy, we set up the KANEKA UNITED Kizuna Foundation in September 2019 to speed up disaster-stricken areas return to normal and healthy conditions.

This Foundation consists of reserves contributed by the company at the time of founding and on a regular basis and reserves contributed periodically and voluntarily by employees who agree with the purpose of the Foundation.

When typhoon Nos. 15 and 19 hit Japan in September and October 2019, respectively, we donated 10 million yen to the Japan Platform through the KANEKA UNITED Kizuna Foundation to aid disaster victims and reconstruction.

We hope that disaster-stricken areas will achieve rehabilitation and reconstruction in the quickest possible time.

#### Help for Damages due to the West Japan Heavy Rain of July 2018 and the Hokkaido Eastern Iburi Earthquake

When the West Japan Heavy Rain of July 2018 occurred from June 28 to July 8, 2018, we set up mist fans powered by our solar cells at temporary housing construction sites as countermeasures against extreme summer heat.

At the time of the Hokkaido Eastern Iburi Earthquake on September 6, 2018, we offered relief goods. We will continue to provide various reconstruction activities in the future.

## Social Contributions

### Fostering Youth Development

Kaneka Group is active in efforts to foster youth development in communities where it operates. We will make a continuous contribution to local communities through youth development.

#### Kaneka Manufacturing Class

Core-Net, an organization consisting of retired executives of companies including Kaneka, provides support for elementary school education using know-how from industry to foster youth development. Continuing from 2014, we offered Kaneka Manufacturing Classes, in which sixth-graders assembled Scrollers II (a small self-powered rolling robot) kits, aiming to increase children's interest in and understanding of manufacturing.

The classes were offered in July 2018 at Torikai Nishi Elementary School, near the Osaka Manufacturing Site, to 90 students; in October at Takasago Elementary School, near the Takasago Manufacturing Site, to 68 students; and in December at Shimosakamoto Elementary School, near the Shiga Manufacturing Site, to 115 students.

Kaneka employees, mainly newly hired at these Manufacturing Sites, joined the classes as lecturers to assist students and show them the enjoyment and sense of achievement that can come from creating something. After assembling the kits, students were very excited to see the trial runs in gymnasiums.



Takasago Manufacturing Site



Osaka Manufacturing Site



## Effort of the Kaneka Group

### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Regularly accepted internship, on-the-job training, and career experience offers from local students. Also participated in Hyogo Prefecture's work experience programs for junior high school students and conducted plant and facility visits for neighborhood schools, local community associations, and other groups.



Practice in processing jam ingredients (Shinka Shokuhin Co., Ltd.)



Career experience of junior high school students (Kaneka Foods Corporation)



Plant visit by local elementary school students (Kochi Styrol Co., Ltd.)



Educational visit by second-graders (Kaneka Nishinippon Styrol Co., Ltd.)

### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Conducted outreach lectures and lab classes for students from elementary school level.



"Welcome Seniors" program offered to sixth-graders to introduce Kaneka and researcher work, and have them think about working (Shiga Manufacturing Site)



Outreach lecture using resin foam (Kashima Manufacturing Site)



Offered a class on fire safety for local students (HiHua Fiber Co., Ltd.)

〈Takasago Manufacturing Site, Kaneka Takasago Service Center Co., Ltd.〉

Held a series of events, from planting sweet potatoes in May to a harvesting festival in November, for children from neighborhood kindergartens, elementary schools, and special needs groups of people with disabilities.

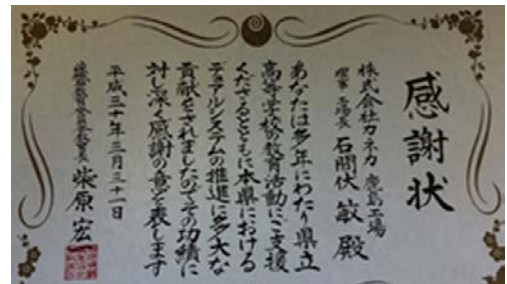


Planted sweet potatoes

〈Kashima Manufacturing Site, Kaneka Belgium N.V.〉

Introduced a dual education system(\*) for students, combining learning experience and vocational guidance. Provided a training environment in which they can learn and try professional skills and theories at a chemical plant.

\* Dual education system: A system of simultaneous academic and vocational education



Received a letter of appreciation for many years' contribution to educational activities (Kashima Manufacturing Site)

〈Cemedine Co., Ltd.〉

- Presented adhesive products for wood to all new first-graders in Koga City, where its plant is located.
- Participated in the Bell Mark activities aimed at enabling every child to receive education in a quality environment.
- Supported the activities of the Japan Wrestling Federation involved in spreading and developing wrestling and fostering wrestlers.



Bell Mark logo



Presented adhesive products to new first-graders

〈Shiga Manufacturing Site, Kaneka Techno Research Corporation, Cemedine Co., Ltd.〉

Became a sponsor of and provided donations to events for students responsible for the next generation.

〈Osaka Manufacturing Site〉

Offered a hands-on safety experience program and a safety lecture to help local high school students obtain knowledge on danger and safety in the handling of equipment.

〈Kaneka Americas Holding, Inc.〉

- Supported the Student Leadership Challenge project for two local high schools in Texas through the Kaneka Foundation, an organization to plan and implement social contribution activities. Provided knowledge and materials necessary for the project and held a half-day workshop for teachers and advisors.
- Continued to provide an annual four-year scholarship of \$1,000 to local high school students through the Kaneka Foundation for 25 years from 1994.

〈Kaneka Medix Corporation〉

Donated bell marks to a local elementary school.

〈River Seiko Corporation〉

Delivered a lecture on the medical device industry in Japan and the design/development of our products and medical devices to about 20 first-graders at a local high school in the visit and training program in the leading-edge technology industry under the SSH (Super Science High-school) project.

# Social Contributions

## Local Communities (Efforts of the Kaneka Group)

Kaneka Group engages in highly open and transparent corporate activities to build strong ties with communities and deepen stakeholder understanding as a good corporate citizen.

### With Local Communities

#### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Held summer festivals and other events for neighborhood residents, employees, and employees of partner companies.



Held a summer festival (Takasago Manufacturing Site)



Held a summer festival (Osaka Manufacturing Site)



Organized a founding anniversary event of the industrial park (Kaneka Solartech Corporation)

#### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Provided donations and support through advertisements for various local events, such as a grand festival and a firework display. Also opened a stall store to offer products, foods, and beverages at such events.



Provided donations to the executive committee of a regional firework display (Kaneka Medix Corporation)



Participated in the Ako Public Meeting on Anti-violation and Local Safety (Osaka Synthetic Chemical Laboratories, Inc.)



Participated in the Aomori Nebuta Festival 2018 with a Nebuta lantern float illuminated by our organic EL lighting (OLED Aomori Co., Ltd.)



Opened a stall store at the Miyoshi Festival (Tokyo Kaneka Foods Manufacturing Corporation)

### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Participated in various sports events sponsored by neighborhood companies, industrial park associations and other organizations, including marathon relay races, marathon, jogging, walking, soccer, softball, volleyball, and bowling.



Joined a charity jogging event and donated the proceeds to the European Association against Leukodystrophies (Kaneka Eurogentec S.A.)



Participated in a futsal competition (Kaneka Foods Manufacturing Corporation)

### 〈All parent Manufacturing Sites, Kaneka Sun Spice Corporation, Kaneka Solartech Corporation, Kaneka Medix Corporation, Tokyo Kaneka Foods Manufacturing Corporation, HiHua Fiber Co., Ltd.〉

Carried out a comprehensive disaster drill with a local fire department. Also actively participated in a firefighting drill and traffic safety and safety promotion activities.



Comprehensive disaster drill to protect lives and properties from water damage (Osaka Manufacturing Site)



Joint firefighting drill with the Toyooka City Fire Department (Kaneka Solartech Corporation)



Joined an early fire extinguishing competition (Kaneka Sun Spice Corporation)

### 〈Kaneka Americas Holding, Inc.〉

- Participated in community meetings held monthly with local residents in the Bay Area to discuss directly the chemical industry and the problem awareness of the local community.
- Offered a Leadership Challenge Workshop for the leaders of local NPOs in cooperation with the local Chamber of Commerce and Industry.



Annual event “Leadership Challenge Workshop”

### 〈Kaneka Singapore Co. (Pte) Ltd.〉

Continued to visit an elderly facility to interact with the elderly through communication games.



### 〈Kaneka, Kaneka Foods Corporation, Kaneka Hokkaido Co., Ltd.〉

Became a special sponsor of the 2018 Hokkaido Marathon. Distributed 5,500 each of bean-jam buns and custard buns containing Q10 to runners in the marathon for free.

### 〈OLED Aomori Co., Ltd., Cemedine Co., Ltd.〉

Supported local sports organizations. Worked on promoting and developing sports culture.

### 〈Kaneka Belgium N.V.〉

Sponsored the G-Sports Flanders Foundation involved in expanding opportunities for persons with disabilities to join sports, and supported the Youth G Soccer Team in cooperation with a local soccer team.

### 〈Kaneka Medix Corporation, Kyushu Kanelite Co., Ltd.〉

Joined a view-exchange meeting with local community associations and companies.

## Environmental Initiatives

### 〈All parent Manufacturing Sites, Group companies in Japan and overseas〉

Each plant, individually and in collaboration with local governments, cleaned up main roads around business sites and company dorms, industrial complexes, grass- and reed-mowing areas, rivers, and seas.



Snow clearing on a neighborhood road (Kaneka Tohoku Styrol Co., Ltd.)



Joint cleanup activity with neighborhood associations (Kaneka Hokkaido Styrol Co., Ltd.)



Grass mowing around the business site four times a year (Kaneka Medix Corporation)



Participated in river cleanup (Kochi Styrol Co., Ltd.)

### 〈Kashima Manufacturing Site〉

Accepted a visit of neighborhood students to the megasolar facility in the west area of the Kashima Manufacturing Site.



### 〈Kaneka Takasago Service Center Co., Ltd.〉

Set large planters along the fence of a sidewalk and arranged flowers throughout the year, which warmed the hearts of passersby and sharply decreased littering and waste.



## 〈Taiyo Yushi Corporation〉

As promotion activities for RSPO(\*), held 10 briefing sessions to explain the current status of palm farms and the significance of its activities to companies, customers, and students.



\*RSPO (Roundtable on Sustainable Palm Oil): A global non-profit organization founded to promote sustainable palm oil production focusing on the environment and human rights. Membership includes palm oil producers, consumer groups, and companies.

## 〈AnaSpec, Inc., Kaneka Eurogentec S.A.〉

Promoted car-sharing and the use of public transportation.

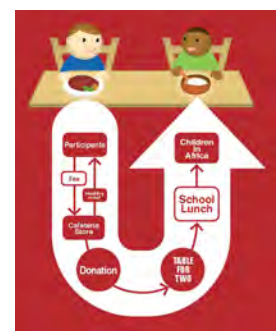
## 〈Kaneka Americas Holding, Inc.〉

Provided longtime support to the Armand Bayou Nature Center, a nearby large nature reserve. Supported the Galveston Bay Foundation working to preserve the Galveston Bay and marine creatures around the river mouth in the bay.

## International Contributions

### 〈Tokyo Head Office, Takasago Manufacturing Site, Osaka Manufacturing Site, Shiga Manufacturing Site〉

Continuously participated in the social contribution activities of Table for Two (TFT) by donating 20 yen for every TFT lunch bought at company cafeterias to school lunch for children in developing countries. In fiscal 2018, made a donation of 244,800 yen equivalent to 12,240 school meals.



System of TFT



## 〈Kaneka, Kaneka Sun Spice Corporation〉

As a corporate partner, Kaneka has supported the school meal program of the United Nations World Food Programme (WFP) since 2013. In Africa, the largest market for our synthetic fiber product, Kanekalon, we made donations to support the WFP's activities. They include the provision of school meals and the distribution of food for home use aimed at increasing attendance at school. We also supported as a sponsor the 2018 WFP Essay Contest, a charity event hosted by the UN WFP as part of the school meal program. Kaneka and Kaneka Sun Spice sponsored another charity event "WFP Walk the World 2018 in Osaka."



WFP Walk the World 2018 in Osaka

## 〈Kaneka Medix Corporation〉

Agreed with the activities of the Japan Committee, Vaccines for the World's Children and implemented a plastic bottle cap collection campaign.

## Awards

### 〈Osaka Synthetic Chemical Laboratories, Inc.〉

- Received the Radio Gymnastics Good Organization Award from Japan Post Insurance Co., Ltd. for its efforts to actively conduct and spread radio gymnastics and enhance employee wellness.
- Received the Excellent Hazardous Materials Engineer Award from the Tsuyama Association for Safety of Hazardous Materials.
- Received the Safety and Health Endeavor Award from Nishinomiya City for its realization of a "no-accident and no-disaster working environment" for 15 years from 2003.



Received a certificate of commendation from the Tsuyama Association for Safety of Hazardous Materials

### 〈Kaneka Americas Holding, Inc.〉

Received the Excellence in Caring for Texas Award from the Texas Chemical Council for its environmental protection activities and community service.



### 〈Kaneka Pharma Vietnam Co., Ltd.〉

Won the Green Book Award, which is granted to excellent green companies in the Binh Duong Province.



### 〈Kaneka Belgium N.V., Kaneka Eurogentec S.A.〉

Received a nomination as a finalist for Belgian Innovation Award 2019, a prestigious prize for industrial innovation in chemistry and life sciences in Brussels, Belgium.



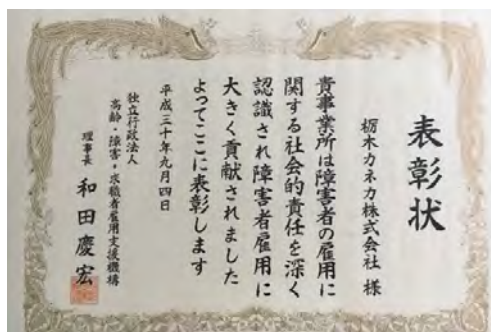
### 〈Kaneka (Malaysia) Sdn. Bhd.〉

Awards granted for its guiding principles “Pollution Prevention Code” and “Process Safety Code” by the Malaysia Chemical Industry Association.



### 〈Tochigi Kaneka Corporation〉

Received the President Award for excellent establishments for employment services for persons with disabilities in FY 2018 from the Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers.



### 〈Kaneka〉

- Certified as a Health and Productivity Enterprise 2019 (White 500).
- Received the 2018 Technical Award of the Society of Synthetic Organic Chemistry, Japan for the innovative process development of pharmaceutical products with continuous flow chemistry.
- Received the 2018 Technical Award of the Society for Biotechnology, Japan for the development of a microbial manufacturing method of Biodegradable Polymer PHBH.
- Received the JSPCMB Award for Technical Advance 2018 from the Japanese Society for Plant Cell and Molecular Biology for the joint research with the National Agriculture and Food Research Organization regarding the development of a versatile genetic modification technology targeting the shoot apical meristem without tissue culture process.
- Received the 2018's Commendation for Science and Technology (Development) by the Minister of Education, Culture, Sports, Science and Technology for the development of wholly-saturated isobutylene-based thermoplastic elastomer.

### 〈Takasago Manufacturing Site〉

Received the Takasago City Commendation Award (Group Division) for its donations to the city.

### 〈Osaka Manufacturing Site〉

Received a commendation for saving human life by taking prompt and appropriate action in an emergency situation during a comprehensive disaster drill.

### 〈OLED Aomori Co., Ltd.〉

Received a commendation for good conduct by donating an OLED mirror to a local farm-fresh grocery store.

### 〈Kaneka (Foshan) High Performance Materials Co., Ltd.〉

Earned a reputation as an excellent company in the trust ranking of business environment given by the local government.

### 〈Kaneka Belgium N.V.〉

Received the Henkel Adhesive Technologies - Supplier Innovation Award from Henkel Belgium S.A. for its MS Polymer technology as the third award winner.

### 〈Kaneka Hokkaido Co., Ltd.〉

Received a letter of appreciation from the Governor of Hokkaido for donations to the 150th Anniversary Project for the Naming of Hokkaido.

## 〈Tokyo Kaneka Foods Manufacturing Corporation〉

Received a record certificate of accident-free operation by the Tokorozawa Labour Standards Association. (Accident-free operation continued for 3.03 million hours (around eight years) until October 15, 2018.)

## 〈Tobu Chemical Co., Ltd.〉

Received a commendation from the President of the Shimotsuma Association for Safety of Hazardous Materials for its longtime handling of hazardous materials with no accidents or violations.

## Other Initiatives

### 〈Kaneka〉

We have sponsored the Japan Century Symphony Orchestra as a corporate supporter. In addition to regular concerts, the orchestra focuses on community-based activities, such as educational programs to encourage children to become more familiar with music, and outreach concerts at hospitals and special needs schools.



Outreach concert at a special needs school



Held a mini concert and a firefly viewing event at the Kaneka Biotope, inviting local residents around the Osaka Manufacturing Site

### 〈Kashima Manufacturing Site〉

Certified as a Sports Yell Company for its active efforts toward the implementation of sports programs to improve employee wellness.



〈Osaka Synthetic Chemical Laboratories, Inc., Kaneka Singapore Co. (Pte) Ltd., Kaneka Eurogentec S.A., Cemedine Co., Ltd.〉

Blood donations were given by many employees.

Cemedine was granted a letter of appreciation by the Japanese Red Cross Society.



Employee donating blood (Kaneka Singapore Co. (Pte) Ltd.)



A letter of appreciation presented by the Japanese Red Cross Society (Cemedine Co., Ltd.)

〈All parent Manufacturing Sites, Osaka Synthetic Chemical Laboratories, Inc., Kaneka Sun Spice Corporation, Kaneka Foods Corporation, Kaneka Takasago Service Center Co., Ltd., Kaneka Chubu Styrol Co., Ltd., Kaneka Tohoku Styrol Co., Ltd., Shiga Denshi Co., Ltd.〉

Donated to the Japanese Red Cross Society, the Central Community Chest of Japan, Médecins Sans Frontières, regional social welfare councils, and other organizations.

〈Takasago Manufacturing Site, Kaneka Hokkaido Co., Ltd.〉

Donated part of the proceeds from a summer festival and a breadmaking class to a fundraising campaign for the victims of Hokkaido Eastern Iburi Earthquake.

〈Kaneka Belgium N.V.〉

Supported the symphonic youth orchestra “Musilene,” which provides educational opportunities of music and art for young musicians.

〈Kaneka (Malaysia) Sdn. Bhd.〉

Gave employees’ voluntary donations to the staff who experienced the death of a family member(s).

〈Biomaster, Inc.〉

Delivered lectures on regenerative medicine and cell therapy, breast cancer screening and therapy, and breast reconstruction for medical institutions.

# Stakeholder Communication

## Shareholder Reporting

We issue reports to shareholders twice per year and also publish them on our website for anyone to read. For topics the reports cover developments of the preceding period using photos and a readable format, and interim reports carry the President & Representative Director's explanation of the company's management strategy, as well as special articles of interest to shareholders. We fully redesigned the report cover in 2010 and adopted a larger page format in 2013, all in an effort to improve the look.

We also print our publications using environmentally friendly vegetable ink and use easy-to-read Universal Design fonts.



Reports (for Shareholders)

## Information Disclosure and Investor Relations

Kaneka prepares management strategy and plans based on its management philosophy, and in order to maintain the understanding and support of shareholders and other stakeholders, works to provide appropriate and timely information and enhance management transparency.

We conduct briefings after announcing annual and quarterly results, with the President & Representative Director or Director in charge providing explanations.

Our website also carries a variety of reports, including financial briefs, securities reports, quarterly reports, Kaneka integrated reports, and financial results briefing materials.



Financial results briefing for security analysts and institutional investors

## CHECK & ACT

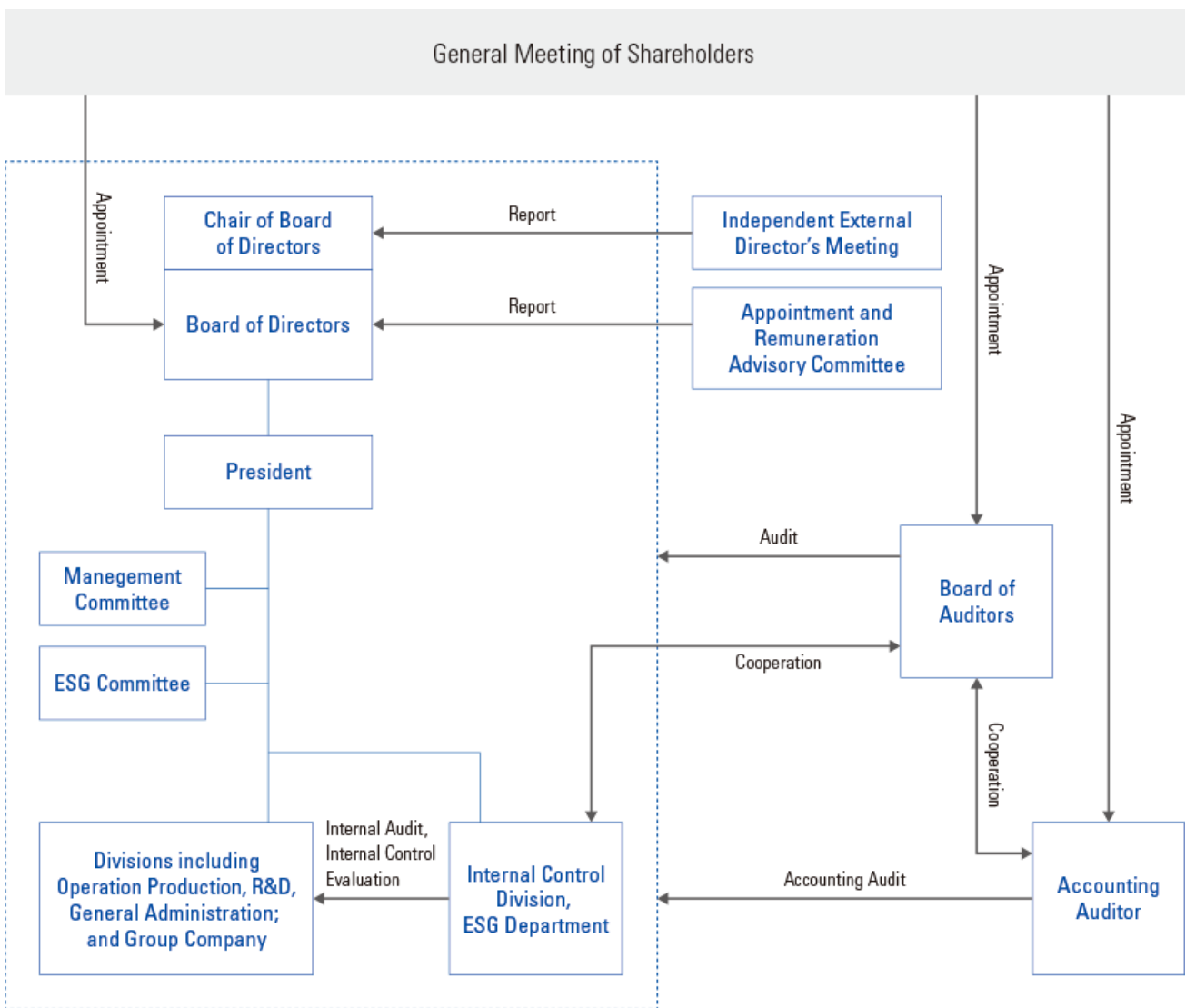
In this fiscal year, we will continue to build on our efforts in the previous fiscal year to ensure proper information disclosure to shareholders and investors.

# Corporate Governance

## Basic Policy

Guided by our Corporate Philosophy, Kaneka aims to achieve sustainable growth, improve medium- to long-term corporate value, and build trust among all stakeholders, including shareholders, investors, customers, local communities, vendors, and employees, realizing optimum corporate governance to fulfill our social responsibility.

### ■ Diagram of Corporate Governance System



► Please see here for the Board of Directors.

### Organizational Design

We currently have two independent external directors and two independent external auditors. Since both the overseeing of business operations by the Board of Directors and auditing by the Board of Auditors are functioning well, Kaneka has chosen to be a Company with Board of Auditors under the Companies Act.

### Directors and the Board of Directors

The Board of Directors seeks to ensure efficient and effective corporate governance in order to realize the company's sustainable growth and increase corporate value in the medium to long term.

The Board of Directors exercises its oversight functions on overall management to ensure fairness and transparency, as well as to appoint management positions, evaluate and determine remuneration, evaluate serious risks and determine strategies to counter them, and make the best decisions on important business operations. The Board of Directors makes resolutions on important matters related to the management of the Kaneka Group after deliberation by the Management Committee, which includes the president. There are at most 13 members on the Board of Directors. Of these, two are independent external directors to strengthen the oversight function. Directors serve for a period of one year to clearly define management responsibilities.

### Auditors and the Board of Auditors

Auditors and the Board of Auditors seek to ensure healthy and sustainable corporate growth and to establish a structure with good corporate governance that can gain social trust by checking on the performance of directors in regard to their duties.

The Board of Auditors comprises four members, two of whom are independent external auditors in principle, and performs audits in coordination with the Accounting Auditor and the ESG Department Internal Control Division's. Auditors are given space to periodically exchange views with the president, and monitor the state of business operations when necessary, by attending key meetings of the Board of Directors and those of the Management Committee, which decides on the implementation of important matters, as well as division head meetings.

### Appointment and Remuneration Advisory Committee / Independent External Director's Meeting

The Appointment and Remuneration Advisory Committee discusses the remuneration of Directors and the appointment of Director and Auditor candidates to report to the Board of Directors. The Independent External Director's Meeting discusses the effectiveness of the Board of Directors to report to the Chair of the Board of Directors.



## Implementation of Business Operations

Kaneka has adopted the executive officer system to harmonize the oversight function of directors with the implementation function of business operations, which also facilitates decision-making and clearly defines roles. The Board of Directors decides on key management strategies and business operations of the entire Kaneka Group, while executive officers assume responsibility for business operations. Division heads, including executive officers appointed by the Board of Directors, are given extensive authority over daily business execution. Monthly division head meetings are held to enable the directors and auditors to directly hear progress reports from each division head. The Internal Control Division of the ESG Department evaluates the effectiveness of internal control and conducts an internal audit.

### Standards for Independence of External Directors/Audit & Supervisory Board Members

We have defined the Standards for Independence of External Directors/Audit & Supervisory Board Members to guarantee the independence of independent external directors and auditors in practice. The standards are disclosed in our notice of convocation general meeting of shareholders, corporate governance report, etc.

### Selection Criteria for Directors

At Kaneka, directors are selected by the Board of Directors, on the basis of character, judgment, expertise and experience as well as ethics without limitations on gender, age, nationality and other attributes, after deliberation by the Appointment and Remuneration Advisory Committee, which is comprised of representative directors and independent external directors.

### Analysis and Evaluation of Effectiveness of the Board of Directors

Kaneka regularly implements an analysis and evaluation of the effectiveness of the Board of Directors, and discloses a summary of the evaluation results. Specifically, the Chair of Board of Directors periodically receives reports from the Independent External Director's Meeting and opinions from the internal directors. Based on these reports, the current status of operations of the Board is evaluated. In the evaluation process in fiscal 2018, the Independent External Director's Meeting held discussions focusing on the operation of the Board of Directors (number of meetings held, frequency, length, contents of information provided beforehand, contents of agendas, deliberations, etc.), role of external directors, and risk management. Based on the discussion results, the Board of Directors conducted a self-evaluation. As a result, it has been confirmed that the Board of Directors functions effectively in making decisions on important matters for the Group such as risk management and supervising business execution. We will continue to enhance the effectiveness of our Board of Directors through effectiveness evaluations.

■ Our Efforts to Strengthen the Governance Capacity

2006	<ul style="list-style-type: none"> <li>▪ Introduced the executive officer system</li> <li>▪ Changed the number of directors from 21 to 13</li> <li>▪ Formulated the Basic Policy on Internal Control System</li> </ul>
2011	<ul style="list-style-type: none"> <li>▪ Appointed an outside director</li> </ul>
2013	<ul style="list-style-type: none"> <li>▪ Formulated the Criteria for Independence of Outside Directors</li> </ul>
2015	<ul style="list-style-type: none"> <li>▪ Increased the number of outside directors from 1 to 2</li> <li>▪ Formulated the Basic Policy on Corporate Governance</li> <li>▪ Established the Appointment and Remuneration Advisory Committee</li> <li>▪ Established the Independent Outside Officers Meeting</li> </ul>
2016	<ul style="list-style-type: none"> <li>▪ Commenced the effectiveness evaluation on the Board of Directors</li> </ul>
2019	<ul style="list-style-type: none"> <li>▪ Revised part of the Basic Policy on Corporate Governance</li> </ul>

# Business Risks and Uncertainties

## Basic Policy

Our basic risk management policy is that each division identifies operational risks and other types of risks that it may face, takes appropriate preventive measures, and responds appropriately in cooperation with other relevant divisions if a risk manifests itself.

For preventive measures against potential risks including those related to ethics and legal compliance, the Compliance Subcommittee of the ESG Committee oversees the development and implementation of the company-wide plans.

When a risk occurs or is likely to occur, the ESG Committee handles the risk in cooperation with the relevant divisions.

We regularly check whether the above-mentioned activities are implemented properly to prevent our risk management system from falling into mere formality, and strive to maintain and improve its effectiveness.

## Business-Related Risks

Factors that may significantly affect the performance and the financial position of the Kaneka Group include those described below.

Please note that the matters described are only those that we considered risks as of March 31, 2019 and that this is not an exhaustive list of risks borne by the Group.

1. Risks related to the Group's ability to maintain operational advantages and trends in the Japanese and overseas economic environments
2. Risks associated with the globalization of our business (fluctuations in foreign exchange rates and overseas business development)
3. Risks of price fluctuations of raw materials and fuels
4. Risks associated with product liability, industrial accidents and large scale disasters
5. Risks associated with the protection of intellectual property rights
6. Impact of environment related regulations
7. Risks associated with legal action
8. Other risks

▶ See the Financial Section for more details

## Strengthening of Information Security

Kaneka Group has established a Basic Information Management Policy, and works to disseminate it to all employees, thereby ensuring appropriate management of information.

### Basic Information Management Policy

#### 1. Observance of laws/regulations and rules

The trust and confidence of society and customers is the most precious asset the Group must protect.

Complying with laws and regulations, social norms, and internal regulations/procedures is the basic principle that all individuals engaged in business activities should follow.

#### 2. Protection of confidential information

Confidential information concerning manufacturing processes, research, sales, etc. is the source of the Group's competitiveness.

All individuals engaged in business activities must be fully aware of this, and must not leak such information or use it for illicit purposes. In particular, data requiring strict handling, such as personal information and information entrusted as confidential from other entities, must be identified as such and managed strictly by the person in charge of information management at each company.

#### 3. Establishment of systems/structures

In order to sustain and expand the Group's business, it is essential to make effective use of information and increase the efficiency of business operations.

In addition to establishing rules regarding information security and continuing to improve information systems to ensure safe, effective use of information, the persons responsible for information management should be determined to ensure appropriate information management.

#### 4. Implementation of training and awareness-raising programs

With the strengthening of Group management and increased use of external resources, people with diverse values and ethics are involved in Kaneka's business operations.

To ensure smooth cooperation with these members, efforts should be made to raise awareness of information security risks and to enhance and continue training on information security including ethical aspects.

To protect its information assets from risks including cyberattacks, Kaneka Group continues striving to enhance security levels, by utilizing the knowledge of external experts. Since fiscal 2018, measures have been taken to reduce risks associated with rapid change in the information security environment, including reviewing existing facilities and introducing various security tools. Stratified training programs, audits, drills, and e-learning education are held regularly to improve employees' information security literacy.

## Enhancing Crisis Management Systems

Based on its basic risk management policy, Kaneka Group's Crisis Management Regulations give employees a better understanding of basic matters concerning emergency response.

We also provided employees with the Crisis Management Handbook, containing intelligible graphs of emergency initial response rules. This handbook explains emergency procedures: proper incident notification, instructions, consultation, and response, as well as the smooth flow of information.

In fiscal 2018, we revised the Crisis Management Regulations to clarify a basic system and roles for emergency response as well as emergency examples and ranks. We will continue to fulfill our social responsibility by maintaining corporate activities, while avoiding and reducing adverse effects on the Kaneka Group as much as possible.

# Compliance

## Basic Policy

Viewing compliance as an important management issue, we implement various initiatives to ensure all directors and employees comply with all applicable laws and regulations.

## Compliance Awareness Raising

Our corporate Intranet provides ready access to our Compliance Guidebook, which provides a clear explanation of our Ethical Code of Conduct as well as the laws and regulations to be observed by all of our directors and employees. Additionally, a variety of training sessions and meetings, and activities of the Compliance Subcommittee ensure that we strictly adhere to our compliance policies.



Compliance Guidebook

## Self-Check in Training Session

The compliance online course for all employees, launched in 2014, was expanded to include Group companies in Japan in 2016; employees from 43 companies participated in fiscal 2018.

Training sessions on the Antimonopoly Act are conducted regularly with all of managerial officers from the Kaneka and Group companies in Japan who are involved in sales, purchasing, and business development, all of whom are required to submit a pledge.

## Internal Audits and Establishment of Consultation Hotlines

The scope of ESG evaluation audits, which are carried out for all Group companies in Japan, the U.S. and Europe, was expanded to include those in China in fiscal 2018. Going forward, Group companies outside Japan will be included as well.

We have also set up compliance consultation hotlines both internally and with outside law firms in order to answer inquiries from those within the Group. We strive to respond quickly to provide a rapid resolution to any concerns that may arise.



A compliance training session

# Intellectual Property

## Basic Policy

Kaneka's Intellectual Property Department, operating directly under the President, secures intellectual property rights such as patents for our R&D results, aiming to provide prompt solutions to help resolve social issues.

From the global perspective, the intellectual property staff are allocated to each site in the Americas, Europe, and Asia, with the Department serving as a center, to respond directly to local issues.

The Department formulates and implements intellectual property strategies for each division, including establishment of patent portfolios covering upstream to downstream business, in cooperation with the business and R&D divisions.

Our invention incentive programs include patent application incentives, patent master incentives for the acquisition of a certain number of registered patents, and overseas patent registration incentives.

Increasing application incentives for employees actively creates intellectual property.

We respect the intellectual property rights of other companies and, to avoid disputes, we conduct careful patent searches, securing patent clearance at each phase of development including theme proposal, commercialization, and specification changes.

## Establishment of Patent Portfolio and Execution of Patent Rights

In fiscal 2018, we acquired patent rights mainly in priority areas contributing to our "Wellness-First Management." In Japan, patents were registered for resin compositions with superior moldability, made of marine biodegradable Kaneka Biodegradable Polymer PHBH, for "Kaneka Luce," an organic EL lighting device with a tiltable/rotatable light-emitting surface, and for margarine containing fermented butter. Outside Japan, we acquired patent rights for hybrid organic EL elements that produce a color closer to natural light, for a plant-growth promoting agent following "Kaneka Peptide," and for a manufacturing method of oxidized and reduced forms of coenzyme Q10, mainly in the U.S.

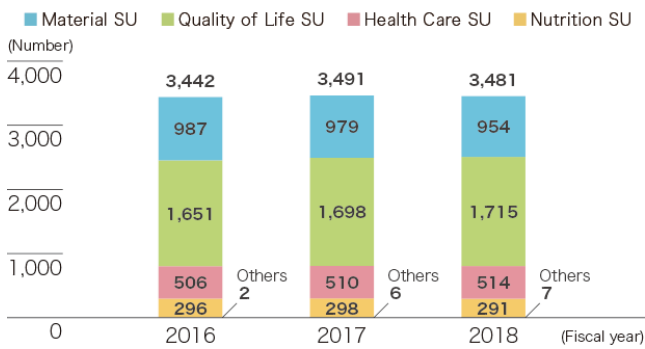
Executing intellectual property rights, we administratively prosecuted three companies that illegally produced and sold wig products under the name of "Kanekalon" in China and confiscated labels and products infringing on our trademark right. In Europe, based on patent rights, we issued warnings to six companies involved in distributing and selling reduced form of coenzyme Q10, blocked the marketing of infringing products, and replaced them with our regular products.



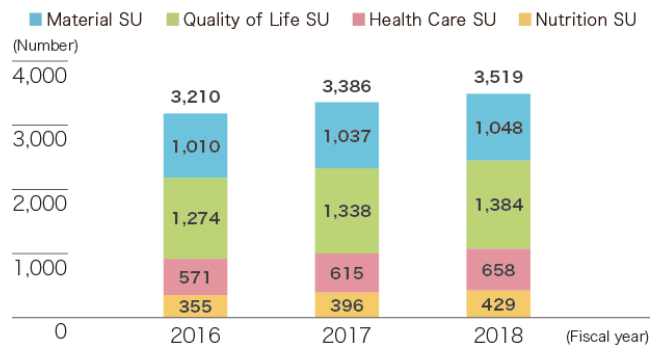
## Number of Patents Held

More than 200 domestic patents were newly registered in fiscal 2018, as in last year, toward transforming our business portfolio. Meanwhile, some product patents expired, so the total number of domestic patents remained almost the same. Foreign patents continued to increase in all SUs, reflecting our recent efforts to strengthen our foreign patent portfolio. Consequently, domestic and foreign patents held by the Group as of the end of fiscal 2018 numbered 3,481 and 3,519, respectively. In particular, globalization of businesses significantly increased the number of foreign patents in the Health Care and Nutrition SUs, our new priority areas.

### ■ Number of National Patents Held



### ■ Number of Foreign Patents Held



## Report Download

KANEKA thinks “Wellness First”. Kaneka Group aims to realize this management philosophy to strengthen efforts for ESG (Environment, Social, and Governance) management and ensure the creation of both social and economic value in a healthy manner through business activities.

The Kaneka Integrated Report 2019 details our efforts to realize this philosophy.


We have recognized the environment and energy, food, and wellness as three priority areas to address global crises. This report delivers information on how we will play a role in resolving global issues, while keeping expectations high. We trust that our shareholders, investors, and other stakeholders understand the significance of the Kaneka Integrated Report 2019.



### Report Download

▶ Kaneka Integrated Report 2019 Full Report (6.07MB)  PDF


I Management Philosophy (102KB)  PDF

II Top Message(788KB)  PDF

III Management Strategies (1.62MB)  PDF

IV Special Feature (2.38MB)  PDF


V Business Foundation (2.10MB)  PDF

VI Appendices (628KB)  PDF


▶ Business Foundation (Detailed Version) Full Report (8.10MB)  PDF

▶ ESG Promotion (281KB)  PDF


▶ Environment (4.05MB)  PDF

▶ Social (5.41MB)  PDF

Safety / Quality  
CSR Procurement  
Human Resource  
Social Contributions  
Stakeholder Communication

▶ Governance (336KB)  PDF

Corporate Governance  
Business Risks and Uncertainties  
Compliance  
Intellectual Property

▶ Report (163KB)  PDF


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▶ Data Sheet 2019 (964KB)  PDF

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in This Report

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Trademarks

## Back Numbers of Report

▶ Kaneka Integrated Report 2018 (4.22MB)  
 PDF

▶ ESG Website 2017 (5.51MB)  PDF

▶ Kaneka Group CSR Report 2016 (8.01MB)  PDF

▶ Kaneka Group CSR Report 2015 (15.9MB)  PDF

▶ Kaneka Group CSR Report 2014 (15.0MB)  PDF

▶ Kaneka Group CSR Report 2013 (8.35MB)  PDF

▶ Kaneka Group CSR Report 2012 (6.11MB)  PDF

▶ Kaneka Group CSR Report 2011 (5.20MB)  PDF

▶ Kaneka Group CSR Report 2010 (4.41MB)  PDF

▶ Data Sheet 2018 (1.0MB)  PDF

▶ Kaneka Integrated Report 2017 (5.57MB)  PDF

▶ The Digest Edition 2016 (14.7MB)  PDF

▶ The Digest Edition 2015 (5.16MB)  PDF

▶ The Digest Edition 2014(4.00MB)  PDF

▶ The Digest Edition 2013 (2.85MB)  PDF

▶ The Digest Edition 2012 (4.68MB)  PDF

▶ The Digest Edition 2011(3.15MB)  PDF

# From the Editorial Team / Organizations Covered in This Report

## From the Editorial Team

Kaneka Integrated Report 2019, covering both financial and non-financial information, has been issued to enhance the understanding of our stakeholders regarding the Kaneka Group's value creation in the medium to long term.

It was created based on FY 2018 results and the Medium-term Management Plan as of May 15, 2019. For the product registered trademarks and other trademarks of the Kaneka Group, please refer to the page listed below.

▶ [Product Registered Trademarks and Other Trademarks](#)

## Organizations Covered in This Report

This report covers Kaneka Corporation and its consolidated subsidiaries both in Japan and other countries. The data on Responsible Care activities encompass the parent and all 61 Group production subsidiaries.

In this report, “Kaneka” refers specifically to Kaneka Corporation. “Kaneka Group” encompasses Kaneka Corporation and Group companies (its consolidated subsidiaries). References to “Group company/companies” do not include Kaneka Corporation.

## Notes Regarding Future Prospects

Statements in this report regarding performance forecasts and other future prospects are based on currently available information and certain assumptions that we consider reasonable, and Kaneka Corporation does not guarantee their achievement. Actual results may differ greatly due to various factors.

## Inquiries

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Fax: +81-6-6226-5127

## Product Registered Trademarks and Other Trademarks

### Product Registered Trademarks and Other Trademarks

The following product names in the ESG website and Integrated Report 2019 are registered trademarks of the Company or Group.

- APICAL
- EPERAN
- EPERAN PP
- KANE ACE
- KANE ACE B
- KANE ACE MX
- KANE ACE PA
- KANEKA PEPTIDE
- KANEKA QH、Kaneka Ubiquinol
- KANEKA MS POLYMER
- KANEKA GEMLAC
- KANEKA Q10
- KANEKA Surfactin
- KANEKA TELALLOY
- KANEKA FLUX
- KANEPEARL
- KANELITE
- KANELITE FOAM
- SUNDUREN
- Kaneka Hyperite
- Café au lait for bread
- Milk for Bread
- PIXEO
- ELMECH
- Floradapt
- GRANSOL
- Graphinity

- KANEKA LUCE
- KANEKA QH
- KANEKA XMAP
- Kanekalon
- PATHERMO
- PHBH
- SIBSTAR
- SoltileX
- T-Green Multi Solar(\*)
- VISOLA

\* “T-Green” is a registered trademark of Taisei Corporation.