




Message from the President

Read an important message from President Masanobu Suzuki.



Fundamental CSR Activities

Learn about the role the KAYAKU spirit plays in our CSR management.

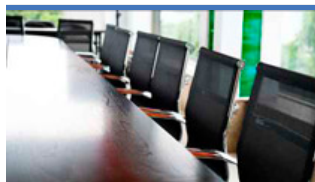
[Corporate Vision and CSR Activities](#)

[CSR Action Plan](#)



Special Feature

A Century of Challenges From Explosives to Chemicals and from Fine Chemicals to a Smart Chemicals Company



Corporate Governance



Compliance



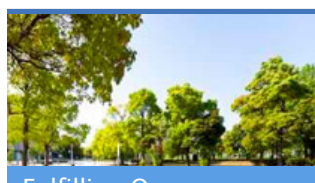
CSR Activities Fulfilling Economic Responsibilities

Read about our departments involved in CSR and our R&D initiatives.



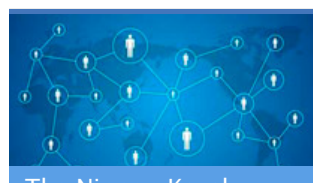
Fulfilling Our Responsibility to Society

- [Initiatives with Our Customers](#)
- [Initiatives with Our Business Partners and Investors](#)
- [Initiatives for Society](#)



Fulfilling Our Responsibility to the Environment

- [Environment, Health and Safety, and Quality Assurance Management System](#)
- [Health and Safety, and Quality \(Assurance\) Initiatives](#)



The Nippon Kayaku Group's CSR Commitment

This section presents the unified CSR commitment of all consolidated group companies.

Initiatives for Employees

Reducing Our Environmental
Impact



Third-Party Opinion



Message from the President



**Safeguarding the life and health of consumers, and supporting a comfortable life
Nippon Kayaku is continuously working to achieve a sustainable society for all**

People today understand that solving resource and environmental issues as well as climate change and other challenges caused by human activities is a shared issue facing the entire earth. Chemical companies such as Nippon Kayaku maintain a responsibility to solve today's social issues and in the process make society and the environment a better place.

On June 5, 2016, the Nippon Kayaku Group celebrated its 100th anniversary. This milestone was made possible by our close connections with society since our founding, our business activities closely in tune with the needs of society and people around the world, and continually delivering the best possible products that meet the needs of each time period based on innovation that captures changing social and market landscapes.

The KAYAKU spirit, or "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences," is based on our corporate creed established more than half a century ago. This spirit has been passed down by those before us and has gained a solid foothold within our organization over time, becoming the foundation of the Nippon Kayaku Group's CSR-centered management. Starting in fiscal 2016, we have embarked on a new three-year mid-term business plan called "**Take a New Step 2016**" under the slogan "Coinciding with the centennial of our company's founding, we are on the verge of taking a new and innovative step forward."

Closely linked to this plan, we created the Mid-term CSR Action Plan 2016-2018, which calls for true CSR-centered management under a unified business plan and CSR action plan.

As the globalization of business environments continues to progress with business activities becoming more borderless, the Nippon Kayaku Group's overseas operations continues to grow too. With 45% of our net sales now originating from outside of Japan, we recognize that our social responsibilities are expanding globally as well. Our diverse business portfolio now includes functional chemicals, pharmaceuticals, automobile safety systems, and agrochemicals, and through these businesses we are committed to contributing to a sustainable society and environment by providing the best products, technologies and services that "Safeguard the life and health of consumers, and support a comfortable life" in the fields of the environment and energy conservation, medicine and safety.

Everyone in the Nippon Kayaku Group, executive officers and employees alike, are working closely together to carry out our business with the shared understanding that corporate activities aimed towards the realization of KAYAKU spirit lead to practicing CSR-centered management.

I would like to ask our stakeholders for their continued support and cooperation as we move forward.

President

Masanobu Suzuki
Masanobu Suzuki



Fundamental CSR Activities

The Nippon Kayaku Group is implementing CSR management that fosters trust among all stakeholders through its focus on the KAYAKU spirit.

Corporate Vision and CSR Activities

The KAYAKU spirit is considered as a common philosophy guiding the entire Nippon Kayaku Group globally and, with this in mind, we are carrying out various initiatives aimed at realizing CSR management.

CSR Action Plan

Our Mid-term CSR Action Plan is made known to all employees and executive officers who together carry out integrated initiatives to enhance awareness about CSR management.

Corporate Governance

We have established an autonomous governance system that ensures management transparency.

Compliance

We are strengthening compliance initiatives around the world under the goal of becoming a company trusted by society.

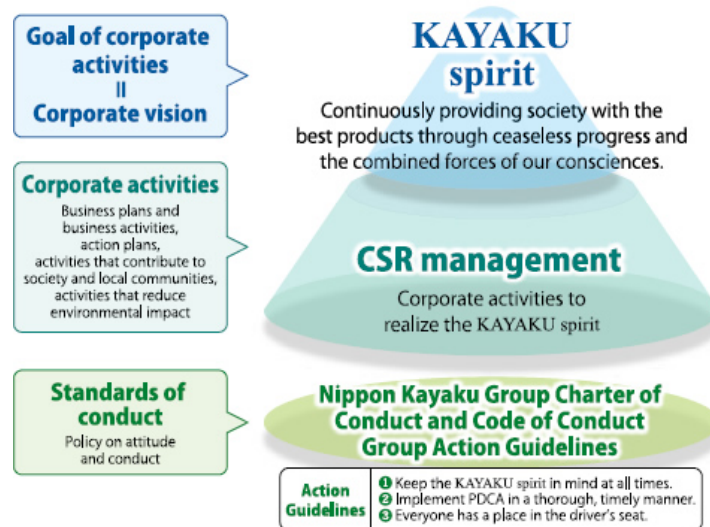


Corporate Vision and CSR Activities

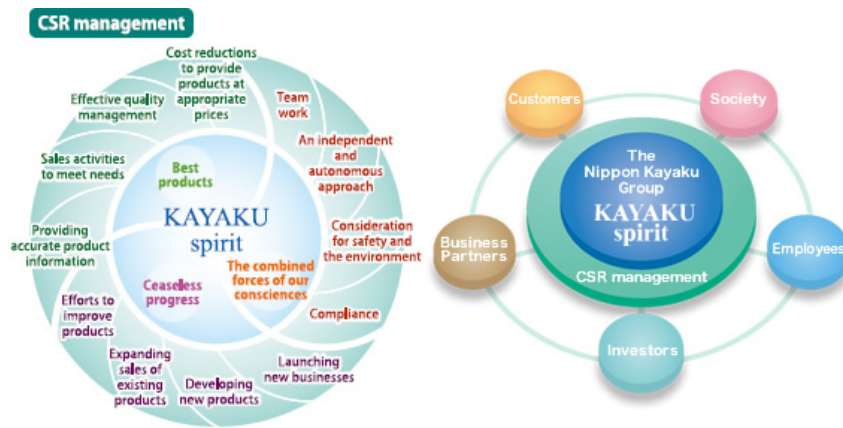
The Nippon Kayaku Group is implementing CSR management that fosters trust among all stakeholders through its focus on the KAYAKU spirit, which calls for "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences."

The KAYAKU spirit and CSR Management

The KAYAKU spirit, or "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences," stands as the Nippon Kayaku Group's corporate vision. The KAYAKU spirit is based on the corporate motto created more than half a century ago and it has stood at the root of our CSR management ever since. We will be able to achieve our vision for CSR management that earns the trust of all stakeholders by engaging in corporate activities that realize the KAYAKU spirit.



CSR management is positioned as a key corporate activity for achieving the vision outlined in the KAYAKU spirit



All of our business activities are grounded in the vision embodied by the KAYAKU spirit. We will foster trust among all of our stakeholders through CSR management that aspires to fulfill this KAYAKU spirit.

Initiatives to Achieve CSR Management

Nippon Kayaku established the CSR Management Committee chaired by its President. This committee, whose members consist of executive officers in charge of each of our business divisions, ensures that we have structure that can monitor all of our business activities from a CSR perspective. Additionally, we have formulated a mid-term CSR action plan linked to our mid-term business plan to integrate our business strategy and CSR activities. This plan has been released to the public and we are currently carrying out the PDCA cycle for its implementation.

We hold dozens of CSR and compliance training sessions throughout the year in order to educate all Nippon Kayaku Group employees about CSR management and to ensure that executive management and the heads of business sites spread awareness of CSR to achieve an integrated approach to reaching our goals. We launched an organization-wide internal project to promote company-wide CSR initiatives. In addition, we have launched a trial program where the excellent initiatives of group companies are shared across the entire Nippon Kayaku Group.



Poster board on The KAYAKU spirit

CSR Actions in Tune with Management Strategy

The Nippon Kayaku Group's basic management policy calls for making contributions to the development of a sustainable society and environment as a company "Continuing to provide the best products, technologies, and services that safeguard the life and health of consumers, and support a comfortable life," while a Mid-term CSR Action Plan has also been put into place in order to satisfy the trust of all stakeholders. Based on this basic management policy, the Nippon Kayaku Group has drawn up the [Mid-term CSR Action Plan 2016-2018](#) and the [three-year mid-term business plan "Take a New Step 2016,"](#) which is closely linked with the action plan.

In this manner, we emphasize safe operations, compliance and environmental consciousness in all of our business operations, hold ourselves to high corporate ethical standards, and practice CSR-centered management closely aligned with our management strategy.

KAYAKU spirit Promotion Efforts using the Kayakuma the Bear



Kayakuma the Bear mascot character representing KAYAKU spirit

We have created a mascot character called Kayakuma the Bear in order to make KAYAKU spirit a concept that is more familiar to all Nippon Kayaku Group employees around the world. This character appears in part of the company newsletter that introduces CSR activities and activities for implementing the corporate vision using visual depictions that are easier to understand for all audiences. The mascot has also been incorporated into our daily stationery, clear file folders and even the designs of conference rooms. This ensures employees are always aware of Kayakuma the Bear and in touch with our corporate vision in all aspects of their work. We are currently filing for a trademark for Kayakuma the Bear and plan on widely using it as a symbol of the Nippon Kayaku Group in newspaper ads and novelty items and events, such as factory festivals.



Conference room and employee locker



CSR Action Plan

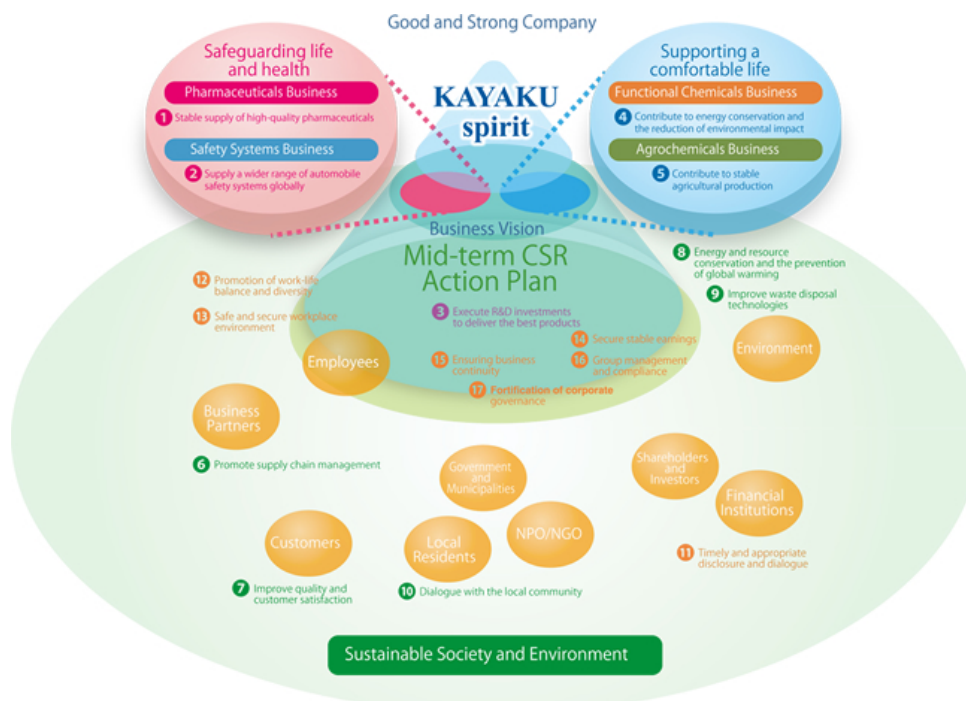
The Nippon Kayaku Group practices CSR management by realizing the KAYAKU spirit, which calls for "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." The following section provides a closer look at the CSR Action Plan and how it is linked to our business activities.

Mid-term CSR Action Plan

The Nippon Kayaku Group has created a Mid-term CSR Action Plan 2016–2018 that is closely linked with the three-year mid-term business plan "Take a New Step 2016," launched on April 1, 2016, which contains the message "Coinciding with the centennial of our company's founding, we are on the verge of taking a new and innovative step forward."

Our goal is to realize the mid-term business vision, "Continuing to provide the best products, technologies, and services that safeguard the life and health of consumers, and support a comfortable life" through our four business segments, while creating a better and stronger company that contributes to a sustainable society and environment.

The Mid-term CSR Action Plan represents a total of 17 items carefully selected as a consensus of the Nippon Kayaku Group from the more than 400 action plans submitted by each business division, including administrative divisions, and consolidated subsidiary.



Please see the following table "Mid-term CSR Action Plan 2016–2018" for details about each action plan. The numerical data within the table matches

Results of MID-TERM CSR ACTION PLAN 2013-2015 and Results of FY 2015 CSR Action Plan

This page contains efforts results and self assessment of the three-year Mid-term CSR Action Plan 2013-2015 **Challenge 100A!** and also contains efforts results and self assessment of the fiscal 2015 CSR Action Plan.

Results of the three-year Mid-term CSR Action Plan 2013 - 2015

Challenge 100A! MID-TERM CSR ACTION PLAN 2013-2015 ASSESSMENT

Category	No.	Challenge 100A! / MID-TERM CSR ACTION PLAN	Challenge 100B! / Results of MID-TERM CSR ACTION PLAN 2013-2015 Initiatives (total 3-year statistics)	Self-assessment
Foundation	1	Improve employee awareness of CSR and compliance	<ul style="list-style-type: none"> CSR training implemented 65 times for more than 1,000 employees Group-wide Compliance training following different themes each year, implemented 146 sessions for 9,600 employees Group-wide Implemented annual compliance awareness surveys in order to assess the status quo and enact concrete measures 	***
	2	Assure business continuity during the event of an emergency	<ul style="list-style-type: none"> Implemented BCP training in the Pharmaceuticals Group, Safety Systems Group, and Agrochemicals Group. Established a BCP Manual more conducive to implementation Established an IT Manual, structured IT systems to be earthquake resistant, ensured usability and recoverability by adopting virtualization technologies, and guaranteed data through remote storage of backups 	**○
	3	Strictly adhere to regulations on chemical substances	<ul style="list-style-type: none"> Established, thoroughly utilized, and implemented training for systems such as a Chemical Substance Management Database Number of major violations related to chemical product laws and regulations, Zero 	***
	4	Continue to make societal contributions through research, development, and provision of product information on cancer and cancer-related fields	<ul style="list-style-type: none"> Brought two embolic microsphere products to market and increased the breadth of IVR treatments, which led to increasing treatment options Proceeded with development of polymeric micelle anti-cancer drugs 	**○
Social Responsibility	5	Thoroughly ensure the education of employees in knowledge and skills related to handling explosives	<ul style="list-style-type: none"> Followed through with plans to train 123 employees in order to thoroughly ensure the education of employees in knowledge and skills related to handling explosives 	**○
	6	Continue conducting onsite instruction efforts for safe agrochemical use	<ul style="list-style-type: none"> Managers held briefing sessions in each of their regions. Number of major violations or accidents due to incorrect use, Zero 	***
	7	Promote CSR procurement in cooperation with suppliers	<ul style="list-style-type: none"> Prepared and published a CSR Procurement Guidebook specifying a purchasing philosophy, basic purchasing policies, and guidelines for CSR procurement Working from the perspective of ensuring stable supply and quality, began efforts to build collaborative relationships with suppliers 	***
	8	Work toward preventative measures against environmental impacts and occupational injuries from major accidents	<ul style="list-style-type: none"> At each business site, continued to implement various initiatives such as safety training, risk assessments, near miss training, and the "pausing and calling" occupational safety method Major accidents, Zero cases, lost worktime accidents, 6 cases 	○(○)
	9	Reduce customer complaints and quality process mishaps	<ul style="list-style-type: none"> Created Nippon Kayaku "Why Why" Analysis Manual, which were posted in each plant and distributed to overseas Group companies. Strengthened workplace competence Series customer complaints, 4 serious quality process defects, 4 	**○
	10	Communicate with the local community	<ul style="list-style-type: none"> Aquiras House, used by over 100 families each year Continued to carry out Pink Ribbon Campaign, plant festivals, local community socials, etc. As educational CSR events, offered chemistry experiment shows to local children at each business site 	***
	11	Provide timely and appropriate disclosure of information to stakeholders	<ul style="list-style-type: none"> Made our Annual Report, CSR Report, website and other necessary information available in a timely manner Improved timely disclosure and transparency by formulating and disseminating Group accounting policy rules, revising the adoption of IFRS (International Financial Reporting Standards), creating documentation for profit shifting, etc. 	**○
	12	Utilize and foster diverse human capital	<ul style="list-style-type: none"> Accompanying the Act of Promotion of Women's Participation and Advancement in the Workplace, began plans to analyze current challenges and formulate an action plan Provided just male female participation and the appropriate living of non-full-time workers (part-time, senior, and temporary workers), and responded to revised labor laws and regulations Exchanged employees globally and promoted skills growth 	***
	13	Give due consideration to employee health and safety, and provide a working environment that allows for a good work-life balance	<ul style="list-style-type: none"> Implemented and thoroughly promoted mental health and health checks, while also establishing an implementation framework for stress check-ups Improved utilization rate of paid leave as part of improving employee work-life balance, while also continuing to promote the reduction of overtime hours 	**○
	14	Protect human rights and privacy	<ul style="list-style-type: none"> Through compliance training, etc. improved awareness of privacy and human rights Worked to publicize and promote the whistleblower hotline. Responded promptly and appropriately to hotline reports (Group-wide awareness rate: approx. 90%) 	***
Environmental Responsibility	15	Expand our green procurement ratio	<ul style="list-style-type: none"> Endeavored to improve the operability of our indirect materials purchasing system. Achieved an 8% proportion of indirect materials purchased with consideration of environmental burdens 	**○
	16	Achieve mid-term environmental targets with due consideration of the environment	<ul style="list-style-type: none"> Continued to implement initiatives at each business site while working to achieve mid-term environmental targets (for fiscal 2020) A portion of those items were not achieved (year-by-year data disclosed on the Nippon Kayaku website) 	**○
	17	Improve waste water treatment technology and respond to environmental regulations	<ul style="list-style-type: none"> Increased the efficiency of activated sludge treatment and established wastewater treatment technology such as removing specific heavy metals, etc. 	**○
Economic Responsibility	18	Strive to be a business with ever lower energy consumption	<ul style="list-style-type: none"> Systematically implemented energy efficiency checks and adopted energy saving equipment Achieved reductions and a 3-year average energy efficiency intensity of 34.3% 	***
	19	Assure stable earnings as a sustainable business group	<ul style="list-style-type: none"> Group-wide, adopted a mid- and long-term priority issue system and implemented an evaluation system based on it Implemented initiatives toward appropriate inventory management cognizant of the BCP Systematically sold off unused real estate and boosted the efficiency of assets 	**○
	20	Launch products that contribute to the environment and to energy conservation	<ul style="list-style-type: none"> Expanded the marketing and application of FreeLux reflective film to sunglasses. Promoted its expansion to other applications as well 	**○
	21	Provide high quality pharmaceutical products that reduce economic burdens	<ul style="list-style-type: none"> Brought to market without delay high quality, low financial burden pharmaceutical products, including two bispecific antibody drugs, generic anti-cancer drugs, etc. 	**○
	22	Roll out low-cost automobile safety devices, using our proprietary technologies, to a global market in order to contribute to protecting lives	<ul style="list-style-type: none"> Established new business bases in major SE Asian markets and boosted the capacity of existing bases in order to strengthen our global presence Responded to increasing demands for safety devices needed in car-dependent societies around the world 	**○
	23	Ensure the continued existence of manufacturing plants by handing down Japan's "monozukuri" technology	<ul style="list-style-type: none"> Held, as planned, a variety of presentations, study sessions, and meetings for each group of managers Implemented production technology training by veteran employees and strove to maintain and pass on the technologies of production plants 	**○
	24	Produce and implement sustainable research programs	<ul style="list-style-type: none"> Established the Center for Innovative Research Started new joint research projects with overseas Group companies Promoted multiple joint research projects with groups outside the Company 	**○

Future response for ★ items

○ **★○ We will strengthen instruction so that various safety activities can be incorporated into actual work. As traffic accident prevention measures, we will strengthen training for new employees and offer parking practice.

○ **★○ We will further disseminate the Nippon Kayaku "Why Why" Analysis Manual and work to prevent serious complaints and quality process accidents before they occur. We will roll these out to overseas Group companies as well.

Results of the three-year Mid-term CSR Action Plan PDF

Results of FY 2015 CSR Action Plan

Challenge 1001 / MID-TERM CSR ACTION PLAN & FY 2015 ASSESSMENT

Category	Item	Target achieved	Actual achieved	Unit being used to track achievement	Not achieved
Environment	1. Reduce CO2 emissions	Reduce CO2 emissions by 10% compared to FY2014	10%	CO2 emissions (t)	10%
	2. Reduce water consumption	Reduce water consumption by 10% compared to FY2014	10%	Water consumption (t)	10%
	3. Reduce waste generation	Reduce waste generation by 10% compared to FY2014	10%	Waste generation (t)	10%
	4. Improve energy efficiency	Improve energy efficiency by 10% compared to FY2014	10%	Energy consumption (kWh)	10%
	5. Reduce hazardous waste	Reduce hazardous waste by 10% compared to FY2014	10%	Hazardous waste (t)	10%
	6. Reduce greenhouse gas emissions	Reduce greenhouse gas emissions by 10% compared to FY2014	10%	Greenhouse gas emissions (t)	10%
	7. Reduce air pollution	Reduce air pollution by 10% compared to FY2014	10%	Air pollution (t)	10%
	8. Reduce noise pollution	Reduce noise pollution by 10% compared to FY2014	10%	Noise pollution (dB)	10%
	9. Reduce water pollution	Reduce water pollution by 10% compared to FY2014	10%	Water pollution (t)	10%
	10. Reduce soil pollution	Reduce soil pollution by 10% compared to FY2014	10%	Soil pollution (t)	10%
Social	1. Improve employee satisfaction	Improve employee satisfaction by 10% compared to FY2014	10%	Employee satisfaction (score)	10%
	2. Reduce employee turnover	Reduce employee turnover by 10% compared to FY2014	10%	Employee turnover (rate)	10%
	3. Improve safety performance	Improve safety performance by 10% compared to FY2014	10%	Safety performance (rate)	10%
	4. Reduce occupational accidents	Reduce occupational accidents by 10% compared to FY2014	10%	Occupational accidents (number)	10%
	5. Reduce lost work days	Reduce lost work days by 10% compared to FY2014	10%	Lost work days (days)	10%
	6. Reduce absenteeism	Reduce absenteeism by 10% compared to FY2014	10%	Absenteeism (rate)	10%
	7. Reduce workplace harassment	Reduce workplace harassment by 10% compared to FY2014	10%	Workplace harassment (number)	10%
	8. Reduce discrimination	Reduce discrimination by 10% compared to FY2014	10%	Discrimination (number)	10%
	9. Reduce harassment	Reduce harassment by 10% compared to FY2014	10%	Harassment (number)	10%
	10. Reduce sexual harassment	Reduce sexual harassment by 10% compared to FY2014	10%	Sexual harassment (number)	10%
Governance	1. Improve board diversity	Improve board diversity by 10% compared to FY2014	10%	Board diversity (rate)	10%
	2. Reduce board independence	Reduce board independence by 10% compared to FY2014	10%	Board independence (rate)	10%
	3. Improve board effectiveness	Improve board effectiveness by 10% compared to FY2014	10%	Board effectiveness (rate)	10%
	4. Reduce board composition	Reduce board composition by 10% compared to FY2014	10%	Board composition (rate)	10%
	5. Improve board structure	Improve board structure by 10% compared to FY2014	10%	Board structure (rate)	10%
	6. Reduce board independence	Reduce board independence by 10% compared to FY2014	10%	Board independence (rate)	10%
	7. Improve board effectiveness	Improve board effectiveness by 10% compared to FY2014	10%	Board effectiveness (rate)	10%
	8. Reduce board composition	Reduce board composition by 10% compared to FY2014	10%	Board composition (rate)	10%
	9. Improve board structure	Improve board structure by 10% compared to FY2014	10%	Board structure (rate)	10%
	10. Reduce board independence	Reduce board independence by 10% compared to FY2014	10%	Board independence (rate)	10%

Legend:
 ● 100% achieved
 ● 90% achieved
 ● 80% achieved
 ● 70% achieved
 ● 60% achieved
 ● 50% achieved
 ● 40% achieved
 ● 30% achieved
 ● 20% achieved
 ● 10% achieved
 ● Not achieved

Results of FY 2015 CSR Action Plan 



Adobe Reader is required to view files in PDF format.
 If you do not have Adobe Reader, click on the icon on the left and start downloading.

Challenge 100A ! MID-TERM CSR ACTION PLAN 2013-2015 ASSESSMENT

<Assessment levels> Target achieved: ★★★ Almost achieved: ★★☆ Under-going efforts toward improvement: ★☆☆ Not achieved: ☆☆☆

Category	No.	Challenge 100A ! MID-TERM CSR ACTION PLAN	Challenge 100A ! Results of MID-TERM CSR ACTION PLAN 2013-2015 Initiatives (total 3-year statistics)	Self-assessment
Foundational	1	Improve employee awareness of CSR and compliance	<ul style="list-style-type: none"> CSR training: implemented 65 times for more than 1,000 employees Group-wide Compliance training: following different themes each year, implemented 166 sessions for 9,600 employees Group-wide Implemented annual compliance awareness surveys in order to assess the status quo and enact concrete measures 	★★★
	2	Assure business continuity during the event of an emergency	<ul style="list-style-type: none"> Implemented BCP training in the Pharmaceuticals Group, Safety Systems Group, and Agrochemicals Group. Established a BCP Manual more conducive to implementation Established an IT Manual, structured IT systems to be earthquake resistant, ensured usability and recoverability by adopting virtualization technologies, and guaranteed data through remote storage of backups 	★★☆
Social Responsibility	3	Strictly adhere to regulations on chemical substances	<ul style="list-style-type: none"> Established, thoroughly utilized, and implemented training for systems such as a Chemical Substance Management Database Number of major violations related to chemical product laws and regulations: Zero 	★★★
	4	Continue to make societal contributions through research, development, and provision of product information on cancer and cancer-related fields	<ul style="list-style-type: none"> Brought two embolic microsphere products to market and increased the breadth of IVR treatments, which contributed to increasing treatment options Proceeded with development of polymeric micelle anti-cancer drugs 	★★☆
	5	Thoroughly ensure the education of employees in knowledge and skills related to handling explosives	<ul style="list-style-type: none"> Followed through with plans to train 123 employees in order to thoroughly ensure the education of employees in knowledge and skills related to handling explosives 	★★☆
	6	Continue conducting onsite instruction efforts for safe agrochemical use	<ul style="list-style-type: none"> Managers held briefing sessions in each of their regions. Number of major violations or accidents due to incorrect use: Zero 	★★★
	7	Promote CSR procurement in cooperation with suppliers	<ul style="list-style-type: none"> Prepared and published a CSR Procurement Guidebook specifying a purchasing philosophy, basic purchasing policies, and guidelines for CSR procurement Working from the perspective of ensuring stable supply and quality, began efforts to build collaborative relationships with suppliers 	★★★
	8	Work toward preventative measures against environmental impacts and occupational injuries from major accidents	<ul style="list-style-type: none"> At each business site, continued to implement various initiatives such as safety training, risk assessments, near-miss training, and the "pointing and calling" occupational safety method Major accidents: Zero cases, lost worktime accidents: 6 cases 	★☆☆
	9	Reduce customer complaints and quality process mishaps	<ul style="list-style-type: none"> Created Nippon Kayaku "Why Why" Analysis Manual, which were posted in each plant and distributed to overseas Group companies. Strengthened workplace competence Serious customer complaints: 4, serious quality process defects: 4 	★☆☆
	10	Communicate with the local community	<ul style="list-style-type: none"> Asunaro House: used by over 100 families each year Continued to carry out Pink Ribbon Campaign, plant festivals, local community socials, etc. As educational CSR events, offered chemistry experiment shows to local children at each business site 	★★★
	11	Provide timely and appropriate disclosure of information to stakeholders	<ul style="list-style-type: none"> Made our Annual Report, CSR Report, website and other necessary information available in a timely manner Improved timely disclosure and transparency by formulating and disseminating Group accounting policy rules, reviewing the adoption of IFRS (International Financial Reporting Standards), creating documentation for profit shifting, etc. 	★★☆
	12	Utilize and foster diverse human capital	<ul style="list-style-type: none"> Accompanying the Act of Promotion of Women's Participation and Advancement in the Workplace, began plans to analyze current challenges and formulate an action plan Promoted joint male-female participation and the appropriate hiring of non-full-time workers (part-time, senior, and temporary workers), and responded to revised labor laws and regulations Exchanged employees globally and promoted skills growth 	★★★
	13	Give due consideration to employee health and safety, and provide a working environment that allows for a good work-life balance	<ul style="list-style-type: none"> Implemented and thoroughly promoted mental health and health checks, while also establishing an implementation framework for stress check-ups Improved utilization rate of paid leave as part of improving employee work-life balance, while also continuing to promote the reduction of overtime hours 	★★☆
	14	Protect human rights and privacy	<ul style="list-style-type: none"> Through compliance training, etc. improved awareness of privacy and human rights Worked to publicize and promote the whistleblower hotline. Responded promptly and appropriately to hotline reports (Group-wide awareness rate: approx. 90%) 	★★★
Environmental Responsibility	15	Expand our green procurement ratio	<ul style="list-style-type: none"> Endeavored to improve the operability of our indirect materials purchasing system. Achieved an 8% proportion of indirect materials purchased with consideration of environmental burdens. 	★★☆
	16	Achieve mid-term environmental targets with due consideration of the environment	<ul style="list-style-type: none"> Continued to implement initiatives at each business site while working to achieve mid-term environmental targets (for fiscal 2020) A portion of these items were not achieved (year-by-year data disclosed on the Nippon Kayaku website) 	★★☆
	17	Improve waste water treatment technology and respond to environmental regulations	<ul style="list-style-type: none"> Increased the efficiency of activated sludge treatment and established wastewater treatment technology such as removing specific heavy metals, etc. 	★★☆
	18	Strive to be a business with ever lower energy consumption	<ul style="list-style-type: none"> Systematically implemented energy efficiency checks and adopted energy saving equipment Achieved reductions and a 5-year average energy efficiency intensity of 98.3% 	★★☆
Economic Responsibility	19	Assure stable earnings as a sustainable business group	<ul style="list-style-type: none"> Group-wide, adopted a mid- and long-term priority issue system and implemented an evaluation system based on it Implemented initiatives toward appropriate inventory management cognizant of the BCP Systematically sold off unused real estate and boosted the efficiency of assets 	★★☆
	20	Launch products that contribute to the environment and to energy conservation	<ul style="list-style-type: none"> Expanded the marketing and application of Frelux reflective film to sunglasses. Promoted its expansion to other applications as well 	★★☆
	21	Provide high quality pharmaceutical products that reduce economic burdens	<ul style="list-style-type: none"> Brought to market without delay high-quality, low financial burden pharmaceutical products, including two biosimilar antibody drugs, generic anti-cancer drugs, etc. 	★★☆
	22	Roll out low-cost automobile safety devices, using our proprietary technologies, to a global market in order to contribute to protecting lives	<ul style="list-style-type: none"> Established new business bases in major SE Asian markets and boosted the capacity of existing bases in order to strengthen our global presence Responded to increasing demands for safety devices needed in car-dependent societies around the world 	★★☆
	23	Ensure the continued existence of manufacturing plants by handing down Japan's "monozukuri" technology	<ul style="list-style-type: none"> Held, as planned, a variety of presentations, study sessions, and meetings for each group of managers Implemented production technology training by veteran employees and strove to maintain and pass on the technologies of production plants 	★★☆
	24	Produce and implement sustainable research programs	<ul style="list-style-type: none"> Established the Center for Innovative Research Started two new joint research projects with overseas Group companies Promoted multiple joint research projects with groups outside the Company 	★★☆

Future response for ★☆☆ items

- 8 . . . ★☆☆ We will strengthen instruction so that various safety activities can be incorporated into actual work. As traffic accident prevention measures, we will strengthen training for new employees and offer parking practice.
- 9 . . . ★☆☆ We will further disseminate the Nippon Kayaku "Why Why" Analysis Manual and work to prevent serious complaints and quality process accidents before they occur. We will roll these out to overseas Group companies as well.

Mid-Term CSR Action Plan 2016-2018 for ISO26000 Core Subjects

	No	Mid-term CSR Action Plan 2016-2018	ISO26000 Core Subjects and Related Issues																		
			Organizational governance	Human rights							Labor practices					The environment					
			Decision-making processes and structure	Due diligence	Human rights risk situations	Avoidance of complicity	Resolving grievances (**N/A)	Discrimination and vulnerable groups	Civil and political rights	Economic, social and cultural rights	Fundamental principles and rights at work	Employment and employment relationships	Conditions of work and social protection	Social dialogue (**N/A)	Health and safety at work	Human development and training in the workplace	Prevention of pollution	Sustainable resource use	Climate change mitigation and adaptation	Protection of the environment, biodiversity and restoration of natural habitats	
Safeguarding life and health	1	Contribute to society by promoting innovations using our technological expertise, and by stably supplying high-quality pharmaceuticals coupled with truly reliable information																			
	2	Contribute to public safety by globally supplying a wider range of automobile safety systems to improve automotive collision safety																			
	3	Contribute to society, safeguard the life and health of the public, and support a comfortable life by executing R&D investments to consistently deliver the best products																			
Supporting a comfortable life	4	Supply society with functional chemicals that help reduce environmental impact and conserve on energy usage																	○	○	
	5	Contribute to stable agricultural production by offering agrochemicals that suit the needs of the market environment and our customers																	◎	◎	
Contributing to the development of a sustainable society and environment	6	Promote supply chain management		◎	◎	○													○		
	7	Promote the additional improvement of customer satisfaction of product quality																			
	8	Contribute to environmental preservation by promoting energy and resource conservation, and measures to prevent global warming																	◎	◎	
	9	Improve environmental preservation technologies for water treatment																	◎	○	
Represent the embodiment of a good and strong company	10	Contribute to coexistence with the local society through communication with its residents							○												
	11	Carry out dialogue with stakeholders by providing appropriate information in a timely manner	○																		
	12	Provide a work environment that focuses on respect for human rights and work-life balance, and promote HR training and diversity		◎	◎						○	◎	○	◎				◎			
	13	Maintain a safe and secure work environment that is free of accidents and work-related disasters													◎		○				
	14	Secure stable earnings as a corporate group with growth potential	◎																		
	15	Maintain business continuity even during an emergency	◎												○						
	16	Instill CSR management throughout the group and continue to fully implement compliance	◎			○			○	○	○	○									
17	Fortify corporate governance throughout the group	◎																			

	No	Mid-term CSR Action Plan 2016-2018	ISO26000 Core Subjects and Related Issues																	
			Fair operating practices					Consumer issues					Community involvement and development							
			Anti-corruption	Responsible political involvement	Fair competition	Promoting social responsibility in the value chain	Respect for property rights	Fair marketing, factual and unbiased information and fair contractual practices	Protecting consumers' health and safety	Sustainable consumption	Consumer service, support, and complaint and dispute resolution	Consumer data protection and privacy	Access to essential services (**N/A)	Education and awareness	Community involvement	Education and culture	Employment creation and skills development	Technology development and access	Wealth and income creation	Health
Safeguarding life and health	1	Contribute to society by promoting innovations using our technological expertise, and by stably supplying high-quality pharmaceuticals coupled with truly reliable information										◎								
	2	Contribute to public safety by globally supplying a wider range of automobile safety systems to improve automotive collision safety										◎	◎							
	3	Contribute to society, safeguard the life and health of the public, and support a comfortable life by executing R&D investments to consistently deliver the best products											◎							
Supporting a comfortable life	4	Supply society with functional chemicals that help reduce environmental impact and conserve on energy usage											◎							
	5	Contribute to stable agricultural production by offering agrochemicals that suit the needs of the market environment and our customers											◎							
Contributing to the development of a sustainable society and environment	6	Promote supply chain management			○	◎														
	7	Promote the additional improvement of customer satisfaction of product quality				○							○							
	8	Contribute to environmental preservation by promoting energy and resource conservation, and measures to prevent global warming																		
	9	Improve environmental preservation technologies for water treatment																		
Represent the embodiment of a good and strong company	10	Contribute to coexistence with the local society through communication with its residents												○	◎	◎	○	○	○	○
	11	Carry out dialogue with stakeholders by providing appropriate information in a timely manner								○								○	○	○
	12	Provide a work environment that focuses on respect for human rights and work-life balance, and promote HR training and diversity																		
	13	Maintain a safe and secure work environment that is free of accidents and work-related disasters																		
	14	Secure stable earnings as a corporate group with growth potential			○								○							
	15	Maintain business continuity even during an emergency																		
	16	Instill CSR management throughout the group and continue to fully implement compliance	○	○	○	○	○	○	○	○	○			○						
17	Fortify corporate governance throughout the group	○	○	○	○	○	○	○	○	○			○							

Challenge 100A ! MID-TERM CSR ACTION PLAN 2013-2015 ASSESSMENT

<Assessment levels> Target achieved: ★★★ Almost achieved: ★★☆ Under-going efforts toward improvement: ★☆☆ Not achieved: ☆☆☆

Category	No.	Challenge 100A ! MID-TERM CSR ACTION PLAN	Challenge 100A ! Results of MID-TERM CSR ACTION PLAN 2013-2015 Initiatives (total 3-year statistics)	Self-assessment
Foundational	1	Improve employee awareness of CSR and compliance	<ul style="list-style-type: none"> CSR training: implemented 65 times for more than 1,000 employees Group-wide Compliance training: following different themes each year, implemented 166 sessions for 9,600 employees Group-wide Implemented annual compliance awareness surveys in order to assess the status quo and enact concrete measures 	★★★
	2	Assure business continuity during the event of an emergency	<ul style="list-style-type: none"> Implemented BCP training in the Pharmaceuticals Group, Safety Systems Group, and Agrochemicals Group. Established a BCP Manual more conducive to implementation Established an IT Manual, structured IT systems to be earthquake resistant, ensured usability and recoverability by adopting virtualization technologies, and guaranteed data through remote storage of backups 	★★☆
Social Responsibility	3	Strictly adhere to regulations on chemical substances	<ul style="list-style-type: none"> Established, thoroughly utilized, and implemented training for systems such as a Chemical Substance Management Database Number of major violations related to chemical product laws and regulations: Zero 	★★★
	4	Continue to make societal contributions through research, development, and provision of product information on cancer and cancer-related fields	<ul style="list-style-type: none"> Brought two embolic microsphere products to market and increased the breadth of IVR treatments, which contributed to increasing treatment options Proceeded with development of polymeric micelle anti-cancer drugs 	★★☆
	5	Thoroughly ensure the education of employees in knowledge and skills related to handling explosives	<ul style="list-style-type: none"> Followed through with plans to train 123 employees in order to thoroughly ensure the education of employees in knowledge and skills related to handling explosives 	★★☆
	6	Continue conducting onsite instruction efforts for safe agrochemical use	<ul style="list-style-type: none"> Managers held briefing sessions in each of their regions. Number of major violations or accidents due to incorrect use: Zero 	★★★
	7	Promote CSR procurement in cooperation with suppliers	<ul style="list-style-type: none"> Prepared and published a CSR Procurement Guidebook specifying a purchasing philosophy, basic purchasing policies, and guidelines for CSR procurement Working from the perspective of ensuring stable supply and quality, began efforts to build collaborative relationships with suppliers 	★★★
	8	Work toward preventative measures against environmental impacts and occupational injuries from major accidents	<ul style="list-style-type: none"> At each business site, continued to implement various initiatives such as safety training, risk assessments, near-miss training, and the "pointing and calling" occupational safety method Major accidents: Zero cases, lost worktime accidents: 6 cases 	★☆☆
	9	Reduce customer complaints and quality process mishaps	<ul style="list-style-type: none"> Created Nippon Kayaku "Why Why" Analysis Manual, which were posted in each plant and distributed to overseas Group companies. Strengthened workplace competence Serious customer complaints: 4, serious quality process defects: 4 	★☆☆
	10	Communicate with the local community	<ul style="list-style-type: none"> Asunaro House: used by over 100 families each year Continued to carry out Pink Ribbon Campaign, plant festivals, local community socials, etc. As educational CSR events, offered chemistry experiment shows to local children at each business site 	★★★
	11	Provide timely and appropriate disclosure of information to stakeholders	<ul style="list-style-type: none"> Made our Annual Report, CSR Report, website and other necessary information available in a timely manner Improved timely disclosure and transparency by formulating and disseminating Group accounting policy rules, reviewing the adoption of IFRS (International Financial Reporting Standards), creating documentation for profit shifting, etc. 	★★☆
	12	Utilize and foster diverse human capital	<ul style="list-style-type: none"> Accompanying the Act of Promotion of Women's Participation and Advancement in the Workplace, began plans to analyze current challenges and formulate an action plan Promoted joint male-female participation and the appropriate hiring of non-full-time workers (part-time, senior, and temporary workers), and responded to revised labor laws and regulations Exchanged employees globally and promoted skills growth 	★★★
	13	Give due consideration to employee health and safety, and provide a working environment that allows for a good work-life balance	<ul style="list-style-type: none"> Implemented and thoroughly promoted mental health and health checks, while also establishing an implementation framework for stress check-ups Improved utilization rate of paid leave as part of improving employee work-life balance, while also continuing to promote the reduction of overtime hours 	★★☆
	14	Protect human rights and privacy	<ul style="list-style-type: none"> Through compliance training, etc. improved awareness of privacy and human rights Worked to publicize and promote the whistleblower hotline. Responded promptly and appropriately to hotline reports (Group-wide awareness rate: approx. 90%) 	★★★
Environmental Responsibility	15	Expand our green procurement ratio	<ul style="list-style-type: none"> Endeavored to improve the operability of our indirect materials purchasing system. Achieved an 8% proportion of indirect materials purchased with consideration of environmental burdens. 	★★☆
	16	Achieve mid-term environmental targets with due consideration of the environment	<ul style="list-style-type: none"> Continued to implement initiatives at each business site while working to achieve mid-term environmental targets (for fiscal 2020) A portion of these items were not achieved (year-by-year data disclosed on the Nippon Kayaku website) 	★★☆
	17	Improve waste water treatment technology and respond to environmental regulations	<ul style="list-style-type: none"> Increased the efficiency of activated sludge treatment and established wastewater treatment technology such as removing specific heavy metals, etc. 	★★☆
	18	Strive to be a business with ever lower energy consumption	<ul style="list-style-type: none"> Systematically implemented energy efficiency checks and adopted energy saving equipment Achieved reductions and a 5-year average energy efficiency intensity of 98.3% 	★★☆
Economic Responsibility	19	Assure stable earnings as a sustainable business group	<ul style="list-style-type: none"> Group-wide, adopted a mid- and long-term priority issue system and implemented an evaluation system based on it Implemented initiatives toward appropriate inventory management cognizant of the BCP Systematically sold off unused real estate and boosted the efficiency of assets 	★★☆
	20	Launch products that contribute to the environment and to energy conservation	<ul style="list-style-type: none"> Expanded the marketing and application of Frelux reflective film to sunglasses. Promoted its expansion to other applications as well 	★★☆
	21	Provide high quality pharmaceutical products that reduce economic burdens	<ul style="list-style-type: none"> Brought to market without delay high-quality, low financial burden pharmaceutical products, including two biosimilar antibody drugs, generic anti-cancer drugs, etc. 	★★☆
	22	Roll out low-cost automobile safety devices, using our proprietary technologies, to a global market in order to contribute to protecting lives	<ul style="list-style-type: none"> Established new business bases in major SE Asian markets and boosted the capacity of existing bases in order to strengthen our global presence Responded to increasing demands for safety devices needed in car-dependent societies around the world 	★★☆
	23	Ensure the continued existence of manufacturing plants by handing down Japan's "monozukuri" technology	<ul style="list-style-type: none"> Held, as planned, a variety of presentations, study sessions, and meetings for each group of managers Implemented production technology training by veteran employees and strove to maintain and pass on the technologies of production plants 	★★☆
	24	Produce and implement sustainable research programs	<ul style="list-style-type: none"> Established the Center for Innovative Research Started two new joint research projects with overseas Group companies Promoted multiple joint research projects with groups outside the Company 	★★☆

Future response for ★☆☆ items

- 8 . . . ★☆☆ We will strengthen instruction so that various safety activities can be incorporated into actual work. As traffic accident prevention measures, we will strengthen training for new employees and offer parking practice.
- 9 . . . ★☆☆ We will further disseminate the Nippon Kayaku "Why Why" Analysis Manual and work to prevent serious complaints and quality process accidents before they occur. We will roll these out to overseas Group companies as well.

Challenge 100A ! MID-TERM CSR ACTION PLAN & FY 2015 ASSESSMENT

<Assessment levels> Target achieved : ★★★ Almost achieved : ★★☆ Under-going efforts toward improvement : ★☆☆ Not achieved : ☆☆☆

Category	No.	Challenge 100A ! MID-TERM CSR ACTION PLAN	FY 2015 CSR Action Plan	FY 2015 CSR Action Plan Results	Self-assessment	
Foundational	1	Improve employee awareness of CSR and compliance	Continue CSR and compliance training including Group companies	<ul style="list-style-type: none"> CSR Training: including overseas Group companies, we held 36 sessions for 558 employees. Participants also became instructors themselves and provided CSR training at their own business sites Compliance training: 52 sessions with 2,718 participants were held for domestic group training; 541 employees received DVD training; and 6 training sessions at our Chinese subsidiary were attended by 206 employees 	★★★	
	2	Assure business continuity during the event of an emergency	Reassess the BCP Manual at each workplace and establish a BCP Manual more conducive to implementation Carry out training based on the IT Manual to secure business continuity during emergencies	Established at all business sites The IT Manual was completed as a standards manual for handling information system disasters and has three versions: start-up operations, recovery operations, and maintenance operations.	★★★ ★★☆	
Social Responsibility	3	Strictly adhere to regulations on chemical substances	Enhance in-house instructional programs related to chemical substance regulations Share information with customers through SDS*1 in compliance with each country's standards(continue securely handling GHS adoption in each country)	<ul style="list-style-type: none"> In-house instructional programs related to chemical substance regulations: Implemented training for new employees/mid-career employees/technical employees Information disclosure via SDS*1: Worked to ensure legal and standards compliance in the U.S., China, and elsewhere 	★★★	
	4	Continue to make societal contributions through research, development, and provision of product information on cancer and cancer-related fields	Proceed with development of polymeric micelle anti-cancer drugs Supply Japan's first monoclonal antibody biosimilar treatments	<ul style="list-style-type: none"> Proceeding with development of polymeric micelle anti-cancer drugs Supplying monoclonal antibody biosimilar treatments included efforts to deepen medical professionals' understanding by reporting new clinical results, etc. 	★★☆	
	5	Thoroughly ensure the education of employees in knowledge and skills related to handling explosives	Implement a rank-based education program taught by the explosives safety maintenance team	Lectures: Implemented 3 lectures for 20 novices and 1 lecture for 49 intermediate/advanced participants	★★☆	
	6	Continue conducting onsite instruction efforts for safe agrochemical use	Continue conducting onsite instruction efforts for safe agrochemical use	Briefing sessions: Each representative held briefing sessions as needed in each geographical area Number of major violations or accidents due to incorrect use: Zero	★★★	
	7	Promote CSR procurement in cooperation with suppliers	Use the supplier-targeted website and other tools to begin education for CSR procurement Roll out CSR procurement at Group companies	<ul style="list-style-type: none"> Published the CSR Procurement Guidebook on our website Asked Group companies to implement CSR procurement initiatives 	★★★	
	8	Work toward preventative measures against environmental impacts and occupational injuries from major accidents	Have zero major accidents, zero lost worktime accidents, zero non-injury-related accidents, and 5 or fewer non-lost worktime accidents Vehicle accident rate during work tasks or commuting by pharmaceutical MRs: 4% or lower	<ul style="list-style-type: none"> Major accidents: Zero cases, lost worktime accidents: 3 cases, non-injury-related accidents: 2 cases, non-lost worktime accidents: 5 cases Vehicle accident rate during work tasks*3 or commuting by pharmaceutical MRs: 16.8% 	★☆☆	
	9	Reduce customer complaints and quality process mishaps	Serious complaints: 0, serious quality process defects: 0; Strengthen workplace competence through "Why Why" analysis and roll it out at Group companies	<ul style="list-style-type: none"> Serious customer complaints: Zero, serious quality process defects: 1; Promoted "Why Why" Analysis at domestic plants and also rolled out this approach to Group companies in China 	★★☆	
	10	Communicate with the local community	Continue operating Asunaro House Carry out Pink Ribbon Campaign, plant festivals, and local community socials, local cleanups, and public lectures with the local community	107 families used Asunaro House (56% occupancy rate) <ul style="list-style-type: none"> Pink Ribbon Campaign: Distributed notices around the communities of each business site in October Plant festivals & local community socials: Implemented according to plan As educational CSR events, offered chemistry experiment shows to local children at each business site 	★★★	
	11	Provide timely and appropriate disclosure of information to stakeholders	Website: enhance website content Investors: enhance communication with investors Internal company magazine: create greater NK camaraderie Carry out preparations for adopting IFRS (International Financial Reporting Standards) Comply with the BEPS*2 action plan, emphasizing transfer pricing	<ul style="list-style-type: none"> Website: Updated our IR site and launched a 100th anniversary site Dialogue with investors: Held a plant tour at Polatechno Co., Ltd. Internal company magazine: Printed a 100th anniversary special feature Started up and move forward a project to review the adoption of IFRS Collected information for handling BEPS and wrote reports (drafts) for each country At our Chinese Group's global accounting conference, held a tax seminar on profit shifting systems taught by an outside instructor 	★★★ ★★☆	
	12	Utilize and foster diverse human capital	Continue working toward each target Publicize our female manager target ratio Continue working toward each target	<ul style="list-style-type: none"> Achieved the legally mandated 1.9% employment for workers with disabilities (52 workers) Female manager employment rate: 5.7% (non-consolidated, including seconded employees) Publicized target rate for female manager employment: 8.0% (non-consolidated, excluding seconded employees; targeted for achievement in FY 2020) Support training that also included the families of employees posted overseas: on-going implementation as needed Non-Japanese employees: 10 (domestic, non-consolidated) Provided internships to non-Japanese researchers and study abroad language courses 	★★★ ★★★	
	13	Give due consideration to employee health and safety, and provide a working environment that allows for a good work-life balance	Mental health training: achieve year-1 lecture attendance target of the 3-year plan; Health check-ups: 100% participation Stress check-ups: establish a check-up program Formulate an action plan, and publicize it externally, in line with the basic content of the Act on Advancement of Measures to Support Raising Next-Generation Children	<ul style="list-style-type: none"> Mental health training: implemented as planned Health check-ups: 100% participation rate Stress check-ups: Established a framework and formulated stress check-up implementation guidelines Thorough work load management: Convened a Work Load Advisory Committee comprised of members from both labor and management Reduction of overtime work hours: Averaged 12.4 hr/employee (per month) Next Generation Childcare Support program plan: Published previous FY results and action plan on our website 	★★★ ★★☆	
	14	Protect human rights and privacy	Spread awareness of the whistleblower hotline and respond appropriately to reports	Whistleblower hotline: Spread awareness of the hotline during compliance training; responded appropriately to hotline reports	★★★	
	Environmental Responsibility	15	Expand our green procurement ratio	Continue green purchasing with a target of approximately 8	Proportion of indirect materials purchased with consideration of environmental burdens: 8%	★★★
		16	Achieve mid-term environmental targets with due consideration of the environment	Reduce emissions of chemical substances: continue working toward achieving Mid-Term Environmental Targets set for FY 2020 (details reported on our website)	Continued to implement initiatives at each business site; see p. 21 (of this report) for figures, also disclosed on our website	★★☆
17		Improve waste water treatment technology and respond to environmental regulations	Complete current review projects for wastewater treatment technology by the end of FY 2015 and take on new projects thereafter	<ul style="list-style-type: none"> Established treatment technology for removing specific heavy metals from wastewater Nearly completed existing review topics at plants; finished proposing equipment plans Undergoing tests in actual equipment to verify a new method for removing pigments 	★★☆	
18		Strive to be a business with ever lower energy consumption	Continue improving energy efficiency intensity by 1% or more YoY	<ul style="list-style-type: none"> Systematically implemented energy efficiency checks. Surveyed new energy-saving equipment and proceeded with installation guidance. Energy usage: 1.5% reduction YoY Energy intensity: worsened 103.5% YoY 	★☆☆	
Economic Responsibility	19	Assure stable earnings as a sustainable business group	Spread awareness of the mid- and long-term priority issue system to Group companies, and implement an evaluation system based on it Strive Company-wide to optimize inventories and systematically sell off unused real estate	<ul style="list-style-type: none"> Implemented the mid- and long-term priority issue system at all Group companies Implemented an evaluation system based on this at relevant Group companies Implemented initiatives toward appropriate inventory management in each division Sold off unused real estate at the Tokyo business center 	★★★ ★★☆	
	20	Launch products that contribute to the environment and to energy conservation	Expand sales of Freelux reflective film	Expanded use to sunglasses and moved forward with further applications as well	★★☆	
	21	Provide high quality pharmaceutical products that reduce economic burdens	Bring generic anti-cancer drugs to market without delay	Brought four formulations of generic anti-cancer drugs to market	★★☆	
	22	Roll out low-cost automobile safety devices, using our proprietary technologies, to a global market in order to contribute to protecting lives	Commence production at our Malaysia base and increase and strengthen production facilities at our China, Mexico, and Czech Republic bases	Started production as planned at our Malaysia business location and proceeded smoothly with production equipment preparations at other locations	★★☆	
	23	Ensure the continued existence of manufacturing plants by handing down Japan's "monozukuri" technology	Promote internal presentations at all NK companies globally, promote information sharing through presentations, etc., and systematically implement training programs for young employees	<ul style="list-style-type: none"> Held, as planned, a variety of presentations, study sessions, and meetings for each group of managers Continued NK's unique small-group activities and developed improvement projects as well as HR training Implemented production technology training by veteran employees as planned 	★★☆	
	24	Produce and implement sustainable research programs	Establish connections between the newly created Center for Innovative Research and each R&D division (including Group companies), and continue to generate corporate research themes	<ul style="list-style-type: none"> Launched two new corporate research themes Launched one theme in collaboration with overseas Group companies 	★★☆	

*1 SDS: Safety Data Sheet

*2 BEPS: Base Erosion and Profit Shifting

*3 Reference for "work tasks by pharmaceutical MRs": according to Japan Pharmaceuticals Manufacturers Association publications, there was a 21.0% rate of at-fault accidents in FY 2014 (total number of at-fault accidents/total number of vehicles) when looking at all vehicle types.

Future response for ★☆☆ items

8 . . . ★☆☆ We will strengthen instruction so that various safety activities can be incorporated into actual work. As traffic accident prevention measures, we will strengthen training for new employees and offer parking practice.

18 . . . ★☆☆ In addition to energy saving inspections for our equipment, we will proceed with eliminating unnecessary production processes and will aim to improve our energy intensity.



Special Feature A Century of Challenges

From Explosives to Chemicals
and from Fine Chemicals to a
Smart Chemicals Company®

"Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." By following this corporate slogan, the Nippon Kayaku Group has survived turbulent times, from World War II and post-war reconstruction to Japan's period of rapid economic growth and the collapse of Japan's asset bubble. One of our traits has been our ability to constantly evolve our business activities in a flexible manner under this unwavering slogan to meet the dramatic and repeated changes that have taken place in our business environment. The Nippon Kayaku Group's mainstay products, too, have undergone constant change to meet the needs of the times as well as the needs of Japan's industry and consumers. At the heart of this change and success has been our advanced fine chemical technologies developed since our founding. As a smart chemicals company, we will dedicate management resources to domains where we stand above competition in order to continually contribute to society.



The Nippon Kayaku Group's History

A Century of Value Creation by Responding to Change with KAYAKU spirit

Functional Chemicals
Business

Pharmaceuticals
Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the
Nippon Kayaku Group

1910



1916
Successfully produces
black sulphur dye in Japan

Beginning of Synthetic Dye Production in Japan

Japan relied upon imports for all synthetic dyes from the Meiji period to the Taisho period. These imports were cut off temporarily during World War I causing a nationwide shortage and creating an urgent need to develop synthetic dyes in Japan. For this reason, the government encouraged the domestic production of these dyes. With the start of black sulphur dye, Nippon Kayaku opened the door to production of synthetic dyes in Japan.



1940 Post-war Reconstruction,
Rapid Economic Growth and Environmental Pollution

1940

Approves
corporate
name change
to Nippon
Kayaku Co.,
Ltd.



1951
Launches direct dye
"Kayarus", dye for textiles
made from cotton and hemp
cellulose



1954
Develops fluorescent dye



1960
Launches "Kayalon
Polyester", a disperse dye
for polyester textiles



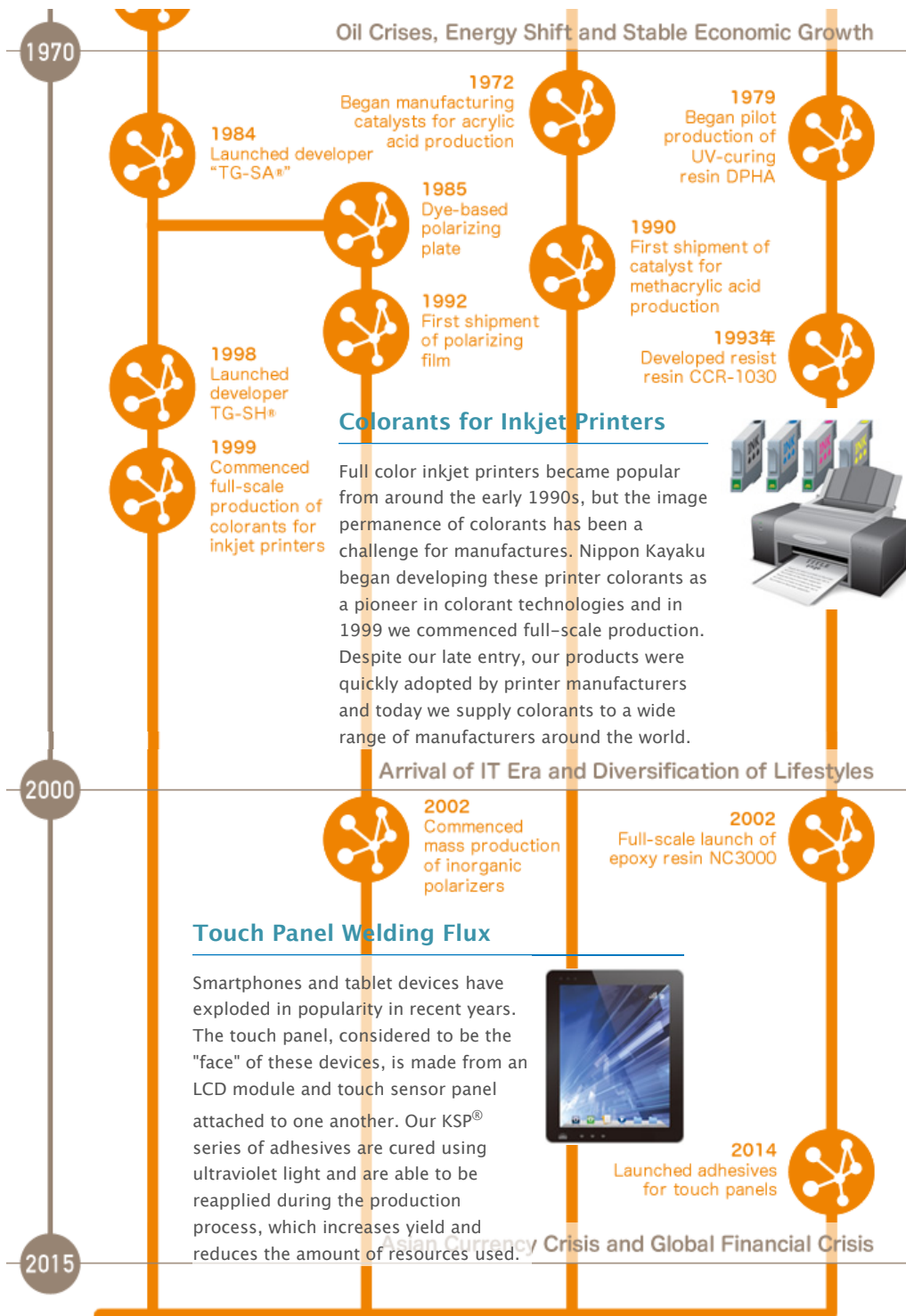
1969
Launches "Kayacryl®" dye
for acrylic textiles



1963
Concludes a licensing
agreement with Standard Oil
Co., Ohio (US) for acrylic acid
technology (catalysts)

1969
Begins
production of
epoxy resins





Colorants for Inkjet Printers

1999 Commenced full-scale production of colorants for inkjet printers

Full color inkjet printers became popular from around the early 1990s, but the image permanence of colorants has been a challenge for manufactures. Nippon Kayaku began developing these printer colorants as a pioneer in colorant technologies and in 1999 we commenced full-scale production. Despite our late entry, our products were quickly adopted by printer manufacturers and today we supply colorants to a wide range of manufacturers around the world.



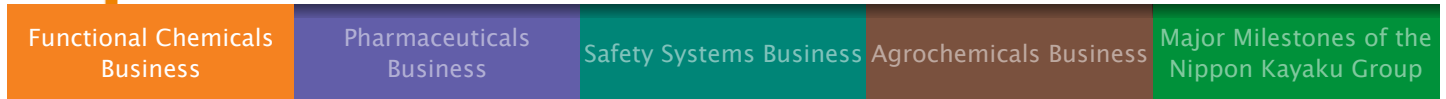
Arrival of IT Era and Diversification of Lifestyles

Touch Panel Welding Flux

Smartphones and tablet devices have exploded in popularity in recent years. The touch panel, considered to be the "face" of these devices, is made from an LCD module and touch sensor panel attached to one another. Our KSP® series of adhesives are cured using ultraviolet light and are able to be reapplied during the production process, which increases yield and reduces the amount of resources used.



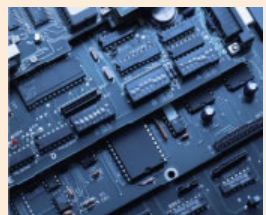
2014 Launched adhesives for touch panels



From Fine Chemicals to a *Smart Chemicals Company*®

Continually delivering functional chemicals with less environmental impacts and that contribute to energy efficiency

The Functional Chemicals Business is developing and supplying functional chemicals with less environmental impacts and that contribute to energy efficiency. For example, our environmentally friendly NC-3000 series of epoxy resin is able to cure with a high degree of flame resistance without adding a flame retardant such as phosphorous or halogen. These adhesives are used for not only semiconductor encapsulation but also printed circuit boards and other fields. The high degree of quality and reduced environmental impact of these products has been proven, earnings them the status of de facto standard in the marketplace today.



In addition, we are contributing to energy and resource savings through the development of high yield catalysts for making acrylic acid and methacrylic acid as well as colorants for industrial inkjet printers that do not produce waste water yet create vivid, solid colors thanks

to our long-standing colorant synthesis technologies. These have earned us a strong reputation among our customers.



Special Feature A Century of Challenges

From Explosives to Chemicals
and from Fine Chemicals to a
Smart Chemicals Company®

"Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." By following this corporate slogan, the Nippon Kayaku Group has survived turbulent times, from World War II and post-war reconstruction to Japan's period of rapid economic growth and the collapse of Japan's asset bubble. One of our traits has been our ability to constantly evolve our business activities in a flexible manner under this unwavering slogan to meet the dramatic and repeated changes that have taken place in our business environment. The Nippon Kayaku Group's mainstay products, too, have undergone constant change to meet the needs of the times as well as the needs of Japan's industry and consumers. At the heart of this change and success has been our advanced fine chemical technologies developed since our founding. As a smart chemicals company, we will dedicate management resources to domains where we stand above competition in order to continually contribute to society.



The Nippon Kayaku Group's History

A Century of Value Creation by Responding to Change with KAYAKU spirit

Functional Chemicals
Business

Pharmaceuticals
Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the
Nippon Kayaku Group

1910



1932
Launches Aspirin, an anti-inflammatory analgesic agent

Meeting demand for aspirin

Aspirin had the largest demand of the important pharmaceuticals that the Government of Japan encourages to be produced domestically, and aspirin was primarily an official drug. At the time, imported pharmaceuticals made up a majority of the domestic market, and amid growing voices for a Japanese pharmaceutical company to initiate private sector production, Nippon Kayaku launched Aspirin Yamakawa, an anti-inflammatory analgesic, in 1932. Aspirin Yamakawa would go on to cover a multitude of domestic drug markets.



1940 Post-war Reconstruction, Rapid Economic Growth and Environmental Pollution

1940

Approves corporate name change to Nippon Kayaku Co., Ltd.



1948
Commences production of antibiotic Penicillin



1967
Launches NEOLAMIN™ 3B intravenous multivitamin



1969
Launches BLEO™, an antitumor antibiotic

Beginning of anti-cancer drugs

Nippon Kayaku's Pharmaceuticals Group successfully developed its first anti-cancer drug in February 1969. The drug, Bleomycin, appeared in the April 27, 1969 edition of the Asahi Shimbun newspaper under the headline "High expectations for novel drug used in cancer treatment." This marked the beginning of Nippon Kayaku's long history with anti-cancer drugs.



Oil Crises, Energy Shift and Stable Economic Growth

1970



1973
Launches MUSCALM™, Antispasmodic agents



1984
Launches RANDA™, Antineoplastic agents

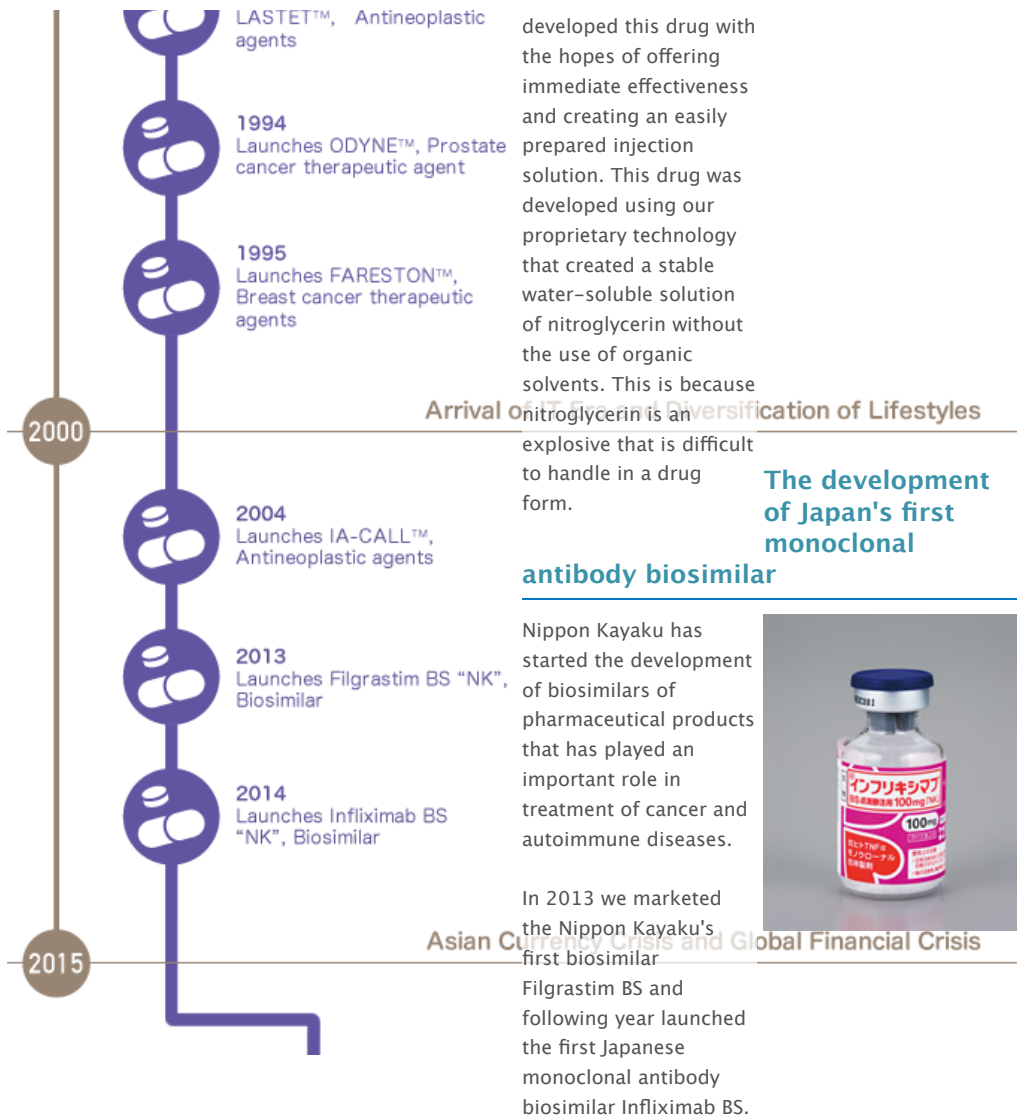


1987
Launches BESTATIN™ and

Development of nitroglycerin injections

In 1984, we launched MILLISROL™, the world's first water-soluble nitroglycerin injections. In addition to a sublingual tablet used as a treatment for angina already in use, Nippon Kayaku





developed this drug with the hopes of offering immediate effectiveness and creating an easily prepared injection solution. This drug was developed using our proprietary technology that created a stable water-soluble solution of nitroglycerin without the use of organic solvents. This is because nitroglycerin is an explosive that is difficult to handle in a drug form.

The development of Japan's first monoclonal antibody biosimilar

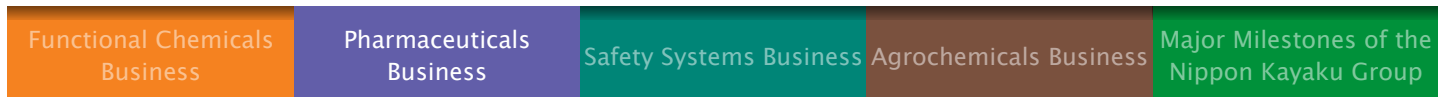
antibody biosimilar

Nippon Kayaku has started the development of biosimilars of pharmaceutical products that has played an important role in treatment of cancer and autoimmune diseases.



In 2013 we marketed the Nippon Kayaku's first biosimilar

Filgrastim BS and following year launched the first Japanese monoclonal antibody biosimilar Infliximab BS.



From Fine Chemicals to a *Smart Chemicals Company*®

We are committed to prompting innovations by using our technological expertise. It is our goal to contribute to society by consistently supplying high-quality pharmaceuticals to improve patient outcomes, and to achieve more efficient medical spending.

Nippon Kayaku is now working on the development of polymeric micelle anti-cancer drugs through a joint Multi-national Phase III Clinical Study. In addition, we are also participating in a joint Multi-national Phase III Clinical Study of monoclonal antibody biosimilar treatments for breast cancer as part of our proactive efforts to develop biosimilar treatments following the success of FILGRASTIM BS and INFLIXIMAB BS, which have already been launched.

We are committed to prompting innovations by using our technological expertise, including in the development of generic anti-cancer drugs. It is our goal to contribute to society by consistently supplying high-quality pharmaceuticals to improve patient outcomes, and to achieve more efficient medical spending.



MINK Web – an informative site targeting medical professionals developed by Nippon Kayaku



Special Feature A Century of Challenges

From Explosives to Chemicals
and from Fine Chemicals to a
Smart Chemicals Company®

"Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." By following this corporate slogan, the Nippon Kayaku Group has survived turbulent times, from World War II and post-war reconstruction to Japan's period of rapid economic growth and the collapse of Japan's asset bubble. One of our traits has been our ability to constantly evolve our business activities in a flexible manner under this unwavering slogan to meet the dramatic and repeated changes that have taken place in our business environment. The Nippon Kayaku Group's mainstay products, too, have undergone constant change to meet the needs of the times as well as the needs of Japan's industry and consumers. At the heart of this change and success has been our advanced fine chemical technologies developed since our founding. As a smart chemicals company, we will dedicate management resources to domains where we stand above competition in order to continually contribute to society.



The Nippon Kayaku Group's History

A Century of Value Creation by Responding to Change with KAYAKU spirit

Functional Chemicals
Business

Pharmaceuticals
Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the
Nippon Kayaku Group

1910

Foundation of Nippon Kayaku Seizo Co., Ltd.



1917
Receives the first private sector license in Japan for manufacturing dynamite

Beginning of Industrial Explosives Production

In 1914, after the start of World War I, Japan's downtrodden economy staged a turnaround to strong economic growth. With an increase mine production, dynamite, which was disposed of by the military and largely relied on imports suffered an extreme shortage. As demands for private sector production sharply increased, Nippon Kayaku Seizo Co., Ltd. became Japan's first company to make dynamite in 1916 in response to the heightened needs of industry.



1940 Post-war Reconstruction, Rapid Economic Growth and Environmental Pollution

1940

Approves corporate name change to Nippon Kayaku Co., Ltd.



1959
Launches C-Type Instantaneous Electric Detonator



1962
Wins the Okochi Memorial Award for the production of Initiating Explosive "DDNP"



1962
Launches ANFO Explosives

Oil Crises, Energy Shift and Stable Economic Growth

1970



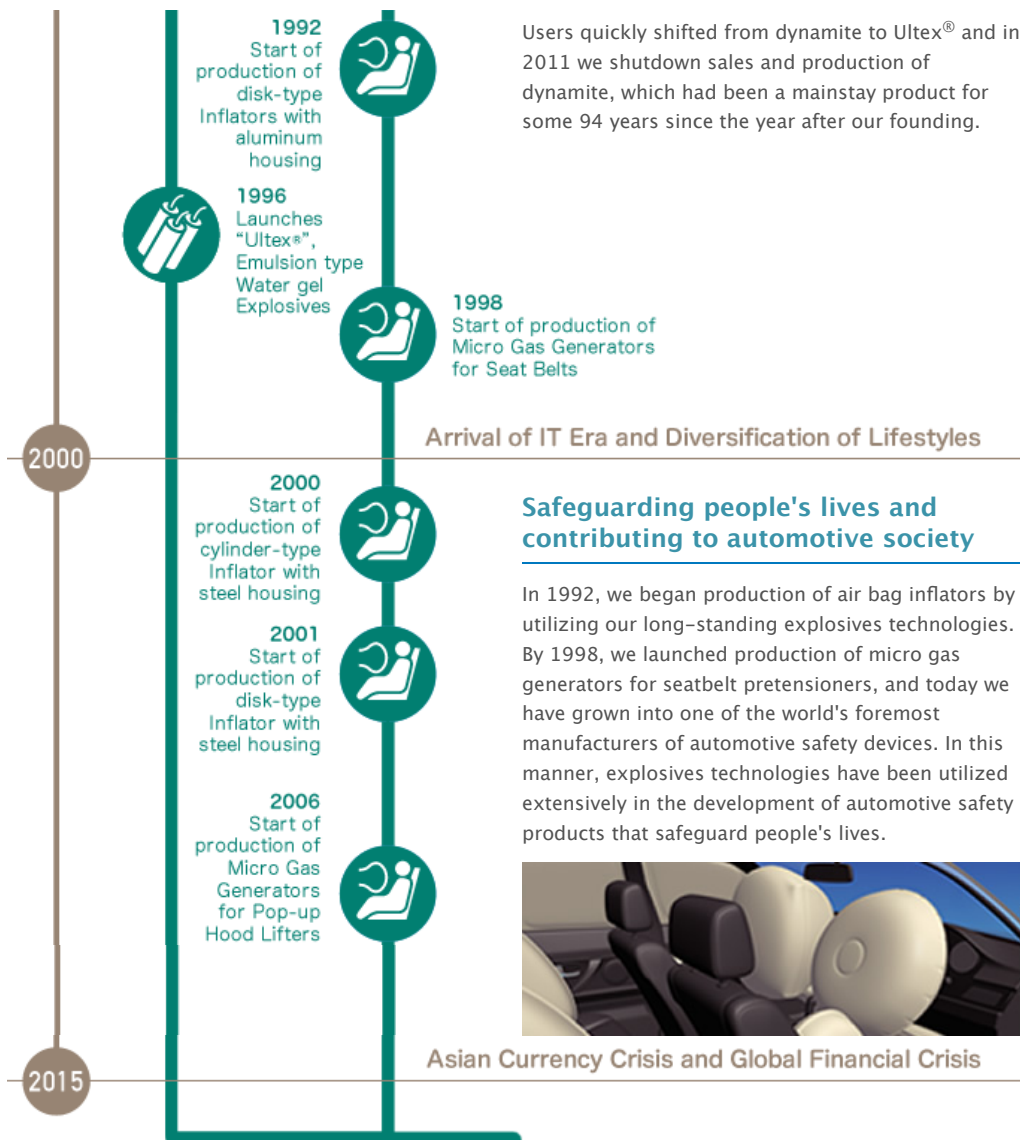
1980
Launches "Kayamite", Emulsion type Water gel Explosives

1989
Start of production of Squibs



Launch of Ultimate Water Gel Explosives

Sixteen years after we launched emulsion type water gel explosive Kayamite, developed in-house as a water gel explosive that greatly enhances safety during manufacturing and use while maintaining a similar power as dynamite, in 1996 we launched emulsion type water gel explosive Ultex[®], named for the fact that it represents the ultimate explosive.



Users quickly shifted from dynamite to Ultex® and in 2011 we shutdown sales and production of dynamite, which had been a mainstay product for some 94 years since the year after our founding.

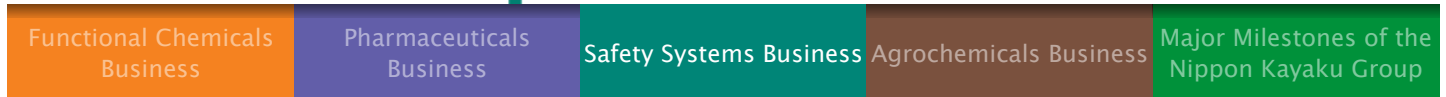
Arrival of IT Era and Diversification of Lifestyles

Safeguarding people's lives and contributing to automotive society

In 1992, we began production of air bag inflators by utilizing our long-standing explosives technologies. By 1998, we launched production of micro gas generators for seatbelt pretensioners, and today we have grown into one of the world's foremost manufacturers of automotive safety devices. In this manner, explosives technologies have been utilized extensively in the development of automotive safety products that safeguard people's lives.



Asian Currency Crisis and Global Financial Crisis



From Fine Chemicals to a *Smart Chemicals Company*®

With explosives safety technologies as our core competencies, we are providing safety to more people around the world mainly through our automotive safety components.

Automobile production in Southeast Asia is expected to see strong growth rates, second only to China in the world, and nearly 60% of the market is occupied by Japanese automakers. In 2011, ASEAN NCAP, safety evaluation standards for new vehicles, was established, with safety testing commencing in 2013. This has dramatically increased the use of automotive safety components in automobiles. Given this, the Safety Systems Group examined market entry in Southeast Asia, with these discussions culminating in the establishment of Kayaku Safety Systems Malaysia Sdn. Bhd. in December 2012. The air bag inflators and micro gas generators for seatbelt pretensioners made here are exported within ASEAN and to India, contributing to automotive safety in these areas.





Special Feature A Century of Challenges

From Explosives to Chemicals
and from Fine Chemicals to a
Smart Chemicals Company®

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The Nippon Kayaku Group's History A Century of Value Creation by Responding to Change with KAYAKU spirit

Functional Chemicals Business

Pharmaceuticals Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the Nippon Kayaku Group

1910

Manufacturing Agrochemicals from Picric Acid

In 1931, Nippon Kayaku began making Chloropicrin, a soil fumigant agrochemical that is highly effective against insect pests and soil-borne diseases, using the raw material of dye agents, known as black sulphur. This agrochemical greatly contributed to the control of soil-borne disease and pest insects that had been difficult to keep under control until then. At the same time, it also formed the foundation for the development of our agrochemicals business in the post-war era.



1931
Commences production of Chloropicrin, a soil fumigant to protect plants from insect pests and soil-borne diseases

1940

1940 Post-war Reconstruction, Rapid Economic Growth and Environmental Pollution

New Agrochemicals Contributing to Increased Food Production

Following World War II, the Government of Japan implemented policies to increase food production, and as a result there were heightened expectations for synthetic agrochemicals that could contribute to plant protection. Nippon Kayaku licensed technologies from Geigy of Switzerland and first commenced production of technical grade Diazinon[®] for hygienic use in 1957, and after some quality improvements, we launched the insecticide called Diazinon[®] Granule for agricultural use in 1964. This product proved to be highly effective against insect pests in paddy rice and agricultural soil, greatly contributing to the development of agriculture in Japan.

Approves corporate name change to Nippon Kayaku Co., Ltd.



1957
Commences production of technical grade Diazinon[®] for hygienic use



1964
Commences production of Diazinon[®] Granule for agricultural use



1970

Oil Crises, Energy Shift and Stable Economic Growth

Diazinon[®] SL sol



1987
Launches insecticide,
Cyclosal®



1990
Launches Diazinon®
SL sol



1992
Launches R-731, rodent
repellent against biting
damage



1999
Launches insecticide,
Matric® Flowable

Diazinon® SL sol was developed using Nippon Kayaku's micro encapsulation technologies. The active ingredient is enclosed in micro capsules, making it safer and long-lasting. This product is now widely used to control the larva of beetles that eat sweet potatoes. Conventionally, agrochemicals had to be applied several times during a growing season, but this product can control insect pests simply by applying it only once prior to the planting.



2000

Arrival of IT Era and Diversification of Lifestyles



2005
Launches hygienic-use
insecticide, Safrothin® MC



2010
Launches spreading
agent/adjuvant, Widecoat®



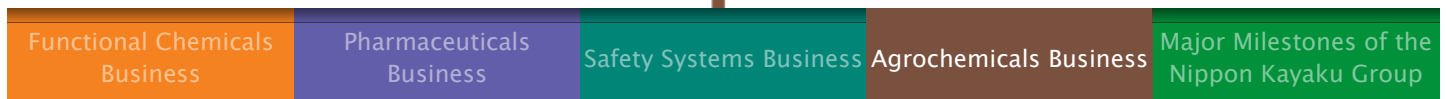
2011
Launches insecticide,
Leaf Guard®



2016
Launches insecticide
& acaricide, Fuhmon®
for mites

Asian Currency Crisis and Global Financial Crisis

2015



From Fine Chemicals to a *Smart Chemicals Company*®

Providing agrochemicals with excellent effects, safety and environmental compatibility together with formulation technologies that make them easy to use and increase performance

On February 15, 2016, the Agrochemicals Division launched spiracle-blocking insecticide Fuhmon®, which is ideal for Integrated Pest management (IPM) that does not rely only on chemical pesticides. This product offers four unique features: (1) it is made from polyglyceryl fatty acid ester which is used as food additive; (2) there are no limitations on the number of applications and it can be used even the day prior to harvesting vegetables; (3) it can protect plants from damage by spider mites, aphids, and whiteflies simultaneously; and (4) it is effective against insects that have become resistant to conventional chemical pesticides. Fuhmon® contributes greatly to protecting plants from various pests, which in turn contributes to the stable production of agricultural crops. Going forward, we will continue to contribute to agriculture while developing and supplying technologies and materials required by all aspects of this field.





Special Feature A Century of Challenges

From Explosives to Chemicals
and from Fine Chemicals to a
Smart Chemicals Company®

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The Nippon Kayaku Group's History

A Century of Value Creation by Responding to Change with KAYAKU spirit

Functional Chemicals
Business

Pharmaceuticals
Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the
Nippon Kayaku Group

1910

1916
Foundation of Nippon Kayaku Seizo Co., Ltd.

1928
Acquires Teikoku Senryo Seizo Co., Ltd.

1931
Establishes Yamakawa Seiyaku Co., Ltd.

1940 Post-war Reconstruction,
Rapid Economic Growth and Environmental Pollution

1940

Approves corporate name change to Nippon Kayaku Co., Ltd.

1943
Merges and absorbs Teikoku Senryo Seizo Co., Ltd. and Yamakawa Seiyaku Co., Ltd..

1945
Approves corporate name change to Nippon Kayaku Co., Ltd.

1962
Establishes corporate motto and corporate spirit

1963
Recipient of the Deming Prize

The Deming Prize

In 1961, Mr. Yasusaburo Hara, then President of Nippon Kayaku, decided to establish a candidacy for the Deming Prize based on the implementation of a consistent company-wide fundamental policy and the recognition that a company's mission to society is to supply high quality products at affordable prices. Over the next two years, all 4,150 employees took part in a quality control campaign for promoting quality assurance. These efforts paid off in 1963 when the company was presented with the Deming Prize. Since then, quality activities have become a source of pride and an ongoing tradition for Nippon Kayaku.



Oil Crises, Energy Shift and Stable Economic Growth

1970

1986
Establishes new corporate symbol

1991
Establishes POLATECHNO CO., LTD.

1992
Releases the Environmental Safety Declaration

releases the Environmental Safety Declaration

1993
Establishes Taiwan Nippon Kayaku Co., Ltd

1995
Acquires certification for quality assurance management system
Establishes NIPPONKAYAKU FOOD TECHNO CO., LTD.

1996
Establishes Wuxi Advanced Chemical Co., Ltd.

1998
Establishment of Asunaro House

1999
Invests in capital of
INDET SAFETY
SYSTEMS a.s.

Arrival of IT Era and Diversification of Lifestyles

2000

2000
Establishes NIPPON KAYAKU TOKYO Co., Ltd. and
NIPPONKAYAKU FUKUYAMA Co., Ltd.

2002
Establishes KAYAKU CHEMICAL (WUXI) CO., LTD.

2004
Launches Pink Ribbon campaign

2006
Establishes Kayaku Safety Systems (Huzhou) Co., Ltd.
Establishment of Nippon Kayaku Korea Co., Ltd.
Name changed to NIKKA FINE TECHNO CO., LTD.

2007
Establishment of Kayaku Safety Systems de Mexico, S.A.de.C.V.

2008
Starts up Kayaku Japan Co., Ltd. Acquires MicroChem Corp.

2010
Establishment of Shanghai Kayaku International Trading Co., Ltd.

2012
Establishment of Kayaku Safety Systems
Malaysia Sdn.Bhd.

Asian Currency Crisis and Global Financial Crisis

2015

Functional Chemicals
Business

Pharmaceuticals
Business

Safety Systems Business

Agrochemicals Business

Major Milestones of the
Nippon Kayaku Group

From Fine Chemicals to a *Smart Chemicals Company*[®]

Quality Improvement Promotion Activities

Nippon Kayaku's initiatives for improving quality began with the voluntary introduction of statistical approaches to QC* activities by plant engineers in 1948.

After receiving the Deming Prize in 1963, Nippon Kayaku organized its very first In-house QC Circle Conference in 1966 as a venue to present the results of its QC activities. Since then, we have expanded the scope of these activities into "Small Group Activity Meetings" mandatory for all employees, with this name later changed to the "Meeting of the Movement for Tomorrow." The scope of these activities has been expanded from quality improvement to energy savings, improving occupational health and safety, and environmental conservation. The "Meeting of the Movement for Tomorrow" serves as venue for giving presentations and networking among employees, and now involves Nippon Kayaku Group companies from outside Japan. Additionally, starting in 2014, we re-launched and revamped our proprietary small group activities to include not only improvements, but also human resource development and CSR.

*QC : Quality Control



Corporate Governance

The Nippon Kayaku Group Corporate Governance and Internal Control System

Fundamental Approach to Corporate Governance

To gain the trust of society, the Nippon Kayaku Group recognizes the vital importance of preserving business transparency through greater checks and balances and of timely, impartial information disclosure to investors and shareholders. To that end, we have put in place an autonomous corporate governance system.

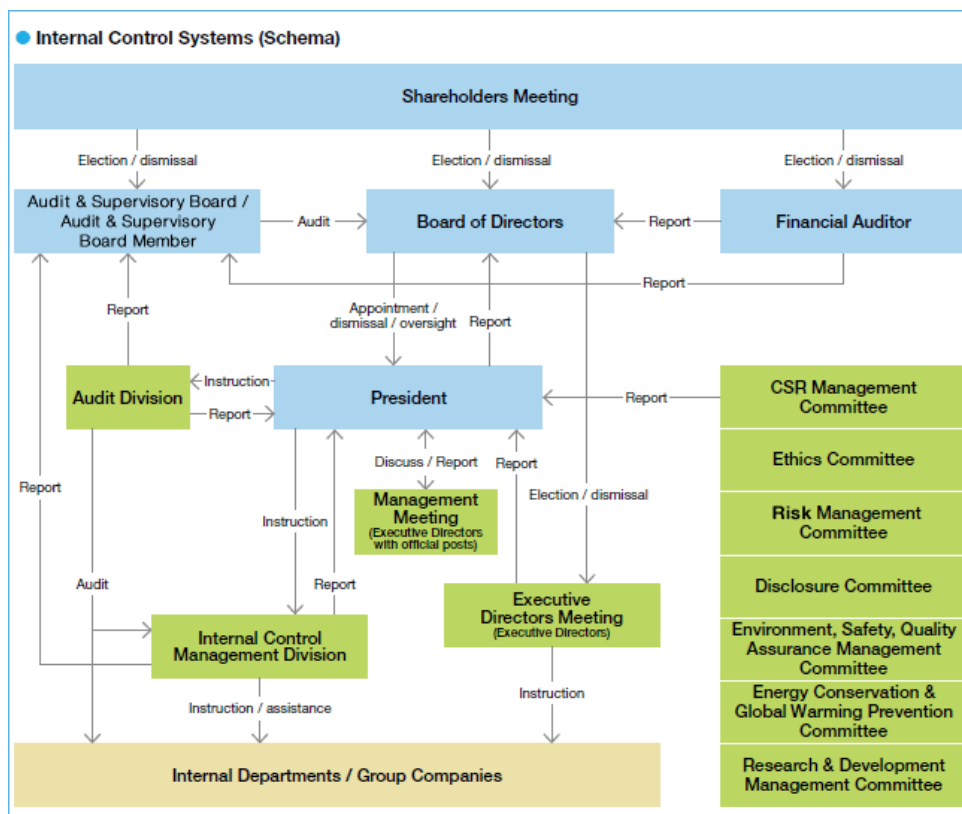
Corporate Governance System

Through decision-making by the council system of our Board of Directors and the corporate auditor system, the Nippon Kayaku Group believes that its system of corporate governance effectively supports management functions.

Starting in August 2005, Nippon Kayaku clearly distinguishes management decision making and auditing from business execution, enabling each of these functions to be reinforced, whereby ensuring that appropriate decision making and punctual business execution take place. To further clarify management accountability and responsibility for business execution, the term of board of directors and executive officers has been set at one year. In addition, an outside director has been appointed since June 2013. This heightens management transparency and helps to further strengthen the company's corporate governance system.

Nippon Kayaku has an Audit & Supervisory Board that comprises five individuals, including three Outside Audit & Supervisory Board Members. Audit & Supervisory Board Members attend board of director meetings and other important company deliberations and through information sharing with the Internal Audit Department they are able to oversee and monitor directors' execution of duties from a neutral and independent stance.

[Summary of Internal Control Systems](#) 



Internal Control System and Corporate Auditor Audits

The Internal Audit Department has been established separate from the Audit & Supervisory Board and is directly managed by the president in order to perform internal audit that help prevent improprieties and errors before they happen, improve business operations, and protect company assets. This department performs business audit on all Nippon Kayaku Group companies in accordance with the fiscal year plan.

Audit & Supervisory Board Members attend board of director meetings and other important company deliberations and performs business execution audits to oversee and monitor directors' execution of duties from an independent perspective in accordance with the audit policy, audit plan, and assignment of duties decided by the Audit & Supervisory Board.

Risk Management System

Identifying and controlling various risks represents an important element of corporate governance. The Nippon Kayaku Group works to mitigate risks following the Risk Management Action Plan approved by the Risk Management Committee.

Activities Promoting Risk Management

The Nippon Kayaku Group is carrying out TOP5 Risk Control Activities as part of its Risk Management Action Plan.

TOP5 Risk Control Activities cover all subsidiaries of the Nippon Kayaku Group that are in turn broken down into more than 70 individual groups. Each group works on identifying their inherent risks, of which the five most critical items are selected and defined as "TOP5 risks." At the start of the year, each group formulates countermeasures for their TOP5 risks, the results of which are compiled by the staff in charge of risk management at fiscal year end for analysis and trend mapping. The collected data is reported to the Risk Management Committee, which continuously examines the data for risks present for the company as a whole, to make sure small risks are not being overlooked, and to see if risk management is being carried out effectively, for utilization in management-level decision making.

Risk Management Training

In the past, the Nippon Kayaku Group had conducted risk management training for managers and above only, while holding individual risk training sessions for new hires, newly appointed managers, and employees on overseas assignments.

In fiscal 2015, in addition to these training sessions, risk management training was held for all Nippon Kayaku Group employees as part of our activities to implement a continuous PDCA cycle for minimizing risk and improving risk awareness. These risk management training sessions will continue to be held going forward.

Crisis management system

We have established a "Crisis Management Manual" and "BCP Manual" in preparation for risks that could have a serious impact on corporate activities. These manuals also form part of our crisis management system.

The first edition of the "Crisis Management Manual" was created in 2000 to enable appropriate management of, and responses to the various risks facing the Nippon Kayaku Group's businesses. After releasing the second edition in 2010, we compiled a third edition in fiscal year 2015, making wide ranging modifications, including a reexamination of applicable risk events and changes to the departments in charge.

The "BCP Manual" stipulates basic actions and matters to be implemented in the preliminary response prior to risk events stipulated in the "Crisis Management Manual" as well as in the post-event initial response and recovery measures in cases where business operations were interrupted. In order to fulfill our responsibility to supply products and minimize management damages, in 2012 we compiled the "Basic Manual" and manuals prepared for each business group.

BCP simulation training is held every year for all executive officers, including the president, in order to ensure business recovery measures are well established. In fiscal 2015, this training focused on the Agrochemicals Division and featured a re-enactment of the Great East Japan Earthquake in order to develop improved responses in terms of production management, shipments and customer service.

Members of the headquarters for disaster countermeasures of Agrochemical Business, including mainly heads of business divisions, were able to create a shipment and production plan for fulfilling customer needs during the training, while working not only with the head office, but the Kashima Plant as well.

The Nippon Kayaku Group's Business Continuity Plan Initiatives

We have conducted business continuity plan (BCP) training at the head office since fiscal 2012, utilizing the lessons learned from the Great East Japan Earthquake and tsunami that struck Japan on March 11, 2011. This section takes a closer look at our BCP initiatives.

[FY 2015 Nippon Kayaku Group Disaster Prevention Training Activities Summary sheet](#) 

BCP Training

In fiscal 2011, we drafted a BCP manual and launched a company-wide BCP project led by the Internal Control Promotion Department and involving all other company divisions. The BCP manual calls for each business division to set up its own response headquarters and for the establishment of a system to focus resources for the restoration of important business operations defined in advance in order to quickly restore operations within the targeted timeframe. Each workplace has also been allocated a satellite phone, design modifications made to information systems, and strategic inventory set up and managed from the perspective of business continuity planning. At the same time, we recognize that employee training is a key to quickly implementing the BCP.

All executive officers, including the president, take part in Nippon Kayaku's BCP training, and since fiscal 2012, this training has been conducted for all of our main organizational units, including Functional Chemicals, Pharmaceuticals, and Safety Systems. In fiscal 2015, this training was held for the Agrochemicals Division in which the scenario featured an earthquake similar in size to the Great East Japan Earthquake.

This type of BCP training will continue to be held on a regular basis going forward to ensure the BCP Manual does not become a "pie in the sky."

Takasaki Plant's Fire and Disaster Prevention Activities

Since the Great Hanshin-Awaji Earthquake, reinforcing the ability to deal with large-scale disasters has become an important issue. Given this, the Fire Services Act was partially revised and the disaster prevention management system was newly established in accordance with the current fire prevention management system.

The size of the Takasaki Plant necessitates disaster prevention management, so in addition to the conventional fire fighting training (held annually), the plant now holds a new training drill with the scenario of a major earthquake. Thus, the comprehensive fire prevention drill is held as part of the plant's fire prevention management during the spring and in the autumn the plant holds comprehensive disaster prevention training using the scenario of a major earthquake (seismic intensity of 6 upper) as part of its disaster prevention management.

All employees participate in both trainings in which the head office and each district are separated into teams to conduct evacuation, rescue, communications (using satellite phones), and protection measures.

The Takasaki Plant is surrounded by rivers and forests, which also exposes it to the risk of wild fires. With this in mind, the plant's firefighting brigade conducts fire training drills at the same time as those mentioned above. On the day of the drills, all participants take part earnestly and the nearby fire chief visits to assess the drill every year. These activities make the drill quite beneficial to all involved.



Also, fire training using actual fire extinguishers is held every year as part of the safety training for new hires and AED training is held as part of Safety Week in October.

Furthermore, following the Great East Japan Earthquake, we have systematically established provisions of food rations (1,000 meals), drinking water and fuel (diesel and gasoline) as part of our emergency response. These provisions are continually maintained for use in emergencies.

Nikka Fine Techno's Disaster Prevention Activities

Nikka Fine Techno Co., Ltd. is the Nippon Kayaku Group's only trading company in Japan. Nikka Fine Techno has its head office in Tokyo and other business sites in Osaka and Fukui. The company has customers in various fields located in all parts of Japan, while overseas it does business mainly in Asia, but also in the United States and Europe.

This photograph was taken during the disaster prevention training at Nikka Fine Techno's head office on September 1, 2015. In addition to this training, Nikka Fine Techno conducts earthquake navigation training, sets up emergency backpacks and carries out emergency evacuation training at all three of its business sites in Tokyo, Osaka and Fukui. The company's disaster prevention training and earthquake navigation training are held with the advice of Nippon Kayaku's Environmental Protection & Safety Division provided for communications and instructions. Nikka Fine Techno will continue to enhance its emergency response through these regular training drills and by storing food and other necessities.



Summary of each Meeting

Board of Directors Meeting (Held Monthly)

To ensure prompt decision-making, the Board is limited to 10 members. Decisions related to important business matters are made through the stipulations of the Board of Directors in conformity with relevant laws and our articles of incorporation. Operational oversight functions also are being strengthened.

Management Meeting (Held Weekly)

The Management Meeting deliberates important matters related to management and business affairs and receives reports from business divisions. The President, as the chairman, makes decisions after thorough deliberation among the Management Meeting members.

Executive Directors Meeting (Held Quarterly)

The Executive Directors Meeting is chaired by the President, and attended by all Executive Directors (up to 25) appointed by the Board of Directors. Executive Directors report on the status of the businesses they have been entrusted with from the Board of Directors and the President as well as other necessary matters.

Management Strategy Meeting (Held Semi-Annually)

Important management matters at the Board Meeting such as basic policy of our group and management strategy are distributed to management personnel through the Management Strategy Meeting to ensure thorough understanding and awareness.

Board of Auditors Meeting (Held Monthly)

The Board of Auditors consists of five auditors (three external). The members monitor and oversee the duties of Directors from an independent position based on the stipulations of the Board of Auditors..

In addition, the Company clarifies authority and responsibility by management position, segregation of duties and company organization structure, setting rules that stipulate duties and powers. This promotes organized and efficient operations and establishes a framework of accountability.

Establishment of Various Committees

CSR Management Committee

Decides CSR action policy and mid-term action plan as well as confirms the validity of the measures based on KAYAKU spirit and CSR philosophy to undertake corporate social responsibility sustainably.

Ethics Committee

Works to formulate policies and measures for compliance and implementation of the Charter of Business Conduct and Code of Business Conduct and to evaluate companywide compliance.

Risk Management Committee

Develops and maintains a risk management structure for risk preventive measure, damage control and damage remediation over the full range of management issues.

Disclosure Committee

Scrutinizing important managerial information of the company and maintains and improves the structure for timely and proper external disclosure.

Environment, Safety, and Quality Assurance Management Committee

Presents its fiscal year policies on environment, safety, and quality assurance matters. Assesses results, and devises plans for improvement.

Energy Conservation and Global Warming Prevention Committee

Makes mid- and long-term plans, confirms each activity and discusses measures to problems based on the policy about energy conservation and global warming prevention.

These results are disclosed to inside and outside the company.

Research & Development Management Committee

Develops company-wide research and development policies and strategies. A forum to report, discuss and make decisions on important research and development matters.

FY2015 Nippon Kayaku Group Disaster Prevention Training Activity Summary Sheet

— : Non-applicable

* 1 Notification, evacuation, fire fighting, and other training in cooperation with the Fire Departments overseeing Comprehensive Disaster Prevention Exercises

* 2 Training in placing the monthly satellite phone calls, starting June 2012, required by the Satellite Phone Training section of the BCP

Business site/ Company name	Comprehensive disaster prevention training*1	Notification training, evacuation training	Early stage fire-fighting training ; Use of fire extinguishers and fire hydrants, firefighting skills	Earthquake simulation training	First-Aid training, AED training	Leakage Response training, Sandbag training	Lectures, study sessions	Satellite phone training*2
Head Office, NIPPON KAYAKU CO., LTD.	●	●	●	●	●	—	●	●
Fukuyama Plant/ NIPPONKAYAKU FUKUYAMA CO., LTD.	●	●	●	●	●	●	●	●
Asa Plant	●	●	●	●	●	●	●	●
Tokyo Plant/ NIPPON KAYAKU TOKYO CO., LTD.	●	●	●	●	●	●	●	●
Takasaki Plant	●	●	●	●	●	●	●	●
Himeji Plant	●	●	●	●	●	●	●	●
Kashima Plant	●	●	●	●	●	●	●	●
Tokyo business CENTER/ Tokyo business district	●	●	●	●	●	●	●	●
POLATECHNO CO., LTD.	●	●	●	●	●	●	●	—
MOXTEC, INC.	—	●	●	—	—	—	●	—
WUXI POLATECHNO OPTICS CO., LTD.	—	●	●	—	—	—	●	—
Dejima Tech B.V.	—	●	●	—	●	—	●	—
POLATECHNO (HONG KONG) CO., LIMITED	—	—	●	—	—	—	—	—
NIKKA FINE TECHNO CO., LTD.	—	—	●	●	—	—	●	—
Nippon Kayaku Korea Co., Ltd.	—	●	—	—	—	—	—	—
NIPPON KAYAKU AMERICA, INC.	—	●	—	—	—	—	—	—
Euro Nippon Kayaku GmbH	—	●	—	—	—	—	—	—
KAYAKU CHEMICAL (WUXI) CO., LTD.	●	●	●	—	●	—	●	—
MicroChem Corp.	—	●	●	—	●	●	●	—
Wuxi Advanced Kayaku Chemical Co., Ltd.	●	●	●	—	●	●	●	—
Shanghai KAYAKU International Trading Co., Ltd.	—	—	—	—	—	—	●	—
NIPPON KAYAKU FOOD TECHNO CO., LTD.	●	●	●	●	●	—	—	—
Tumor Diagnosis Support Co., Ltd.	—	●	—	—	—	—	—	—
NAC Co., Ltd.	●	●	●	●	●	—	●	—
Taiwan Nippon Kayaku Co., Ltd.	—	●	—	—	—	—	—	—
INDET SAFETY SYSTEMS a.s.	—	●	●	—	●	●	●	—
Kayaku Safety Systems (Huzhou) Co., Ltd.	●	●	●	—	—	—	●	—
Kayaku Safety Systems de Mexico, S.A. de C.V.	—	●	●	—	●	—	●	—
Kayaku Safety Systems Malaysia Sdn.Bhd.	—	●	●	—	●	—	●	—
Nishiminato Driving School Corporation	—	●	—	—	—	—	—	—
Wako Toshi Kaihatsu Co., Ltd.	●	●	—	●	●	—	●	—
JHMS Co., Ltd.	—	●	—	—	—	—	—	—
Okiura Golf Center Co., Ltd.	—	●	●	—	●	—	—	—
Kouwa Sangyo Co., Ltd.	●	●	●	●	●	●	●	—
Gunnan Sangyo Co., Ltd.	●	●	●	●	●	●	●	—
Head Office, KAYAKU AKZO CORPORATION	●	●	●	●	—	—	—	—
Asa Plant, KAYAKU AKZO CORPORATION	●	●	●	●	●	●	—	—
Head Office, Kayaku Japan Co., Ltd.	●	●	●	—	—	●	●	—
Asa Plant, KAYAKU AKZO CORPORATION	●	●	●	●	●	●	●	—
Sanko Kagaku Kogyo Co., Ltd.	—	●	●	●	—	—	●	—



Compliance

Raising Awareness about Compliance

The Nippon Kayaku Group believes that compliance holds a position of the utmost importance in its business activities. Compliance not only involves abiding by laws and company rules, but also responding to the needs of social norms and society as a whole. To promote and foster awareness about compliance, we take specific steps on the frontlines that include training and having each workplace create their own action plan. In fiscal 2015, [the Nippon Kayaku Group Charter of Conduct and Code of Conduct](#) was revised and translated into English, Chinese, Spanish, Czech and Malay, and distributed to every Nippon Kayaku Group company.



Training at a Group company in China

Compliance Promotion Activities

Every October, which is designated Compliance Month, we conduct a compliance survey. Issues concerning the promotion of compliance are identified for each business site, and feedback is provided in the form of a report that includes comments for improvements. Each business site incorporates this information into their action plans for the following fiscal year to continue raising awareness of compliance. In fiscal 2015, we entered into a new contract with a survey analysis firm, and also shared objective feedback with each workplace, such as comparisons with other companies and improvement proposals, with requests for improvements to be made.

Compliance Training for Nippon Kayaku Group Companies

Organized by the Internal Control Management Division, compliance training consists of group training sessions which focus on a specific theme determined for each year, along with study sessions held during regular meetings at each workplace, and training sessions based on actual case studies. Training sessions are recorded on DVD and distributed to employees who could not attend so that training opportunities and programs are provided to all for improved awareness of compliance. In fiscal 2015, group training on case studies in organized fraud was held a total of 52 times, which 3,259 employees attended.

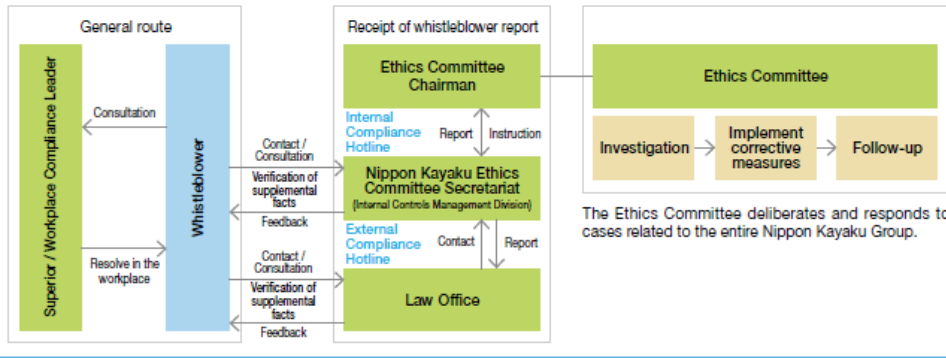
Raising Awareness at Overseas Group Companies

We work closely with overseas group companies to promote greater compliance awareness while also being mindful of local cultures and customs as well as legal risks. In fiscal 2015, we continued to educate employees mainly at our subsidiaries in China about the Nippon Kayaku Group corporate slogan and the Nippon Kayaku Group Charter of Conduct and Code of Conduct and held group training sessions by rank on the topic of legal compliance led by a local lawyer on six occasions, reaching 206 employees.

The Nippon Kayaku Group's whistle-blower system

We have set up whistle-blower hotlines for employees both inside and outside the company. Through these hotlines we strive to quickly remedy situations and also prevent violations of laws, company rules and our code of business conduct before they occur.

● Nippon Kayaku Group Compliance Hotline

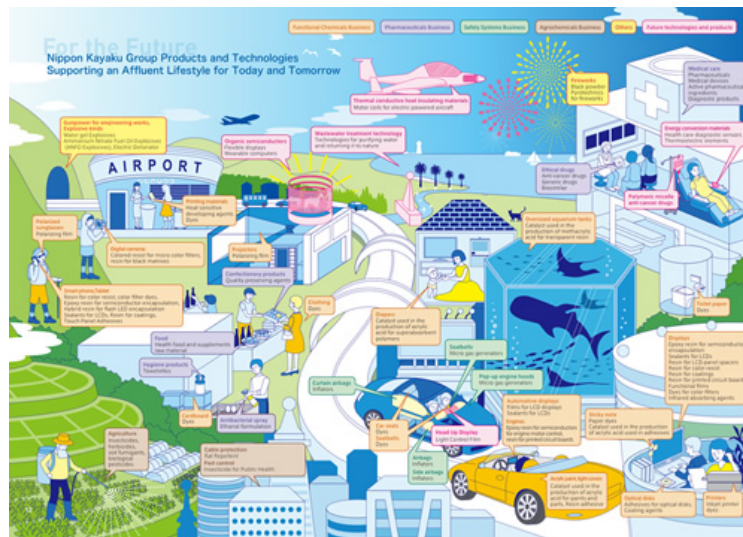




CSR Activities Fulfilling Economic Responsibilities

Current Nippon Kayaku Group Products and Future Technologies and Products Supporting an Affluent Lifestyle

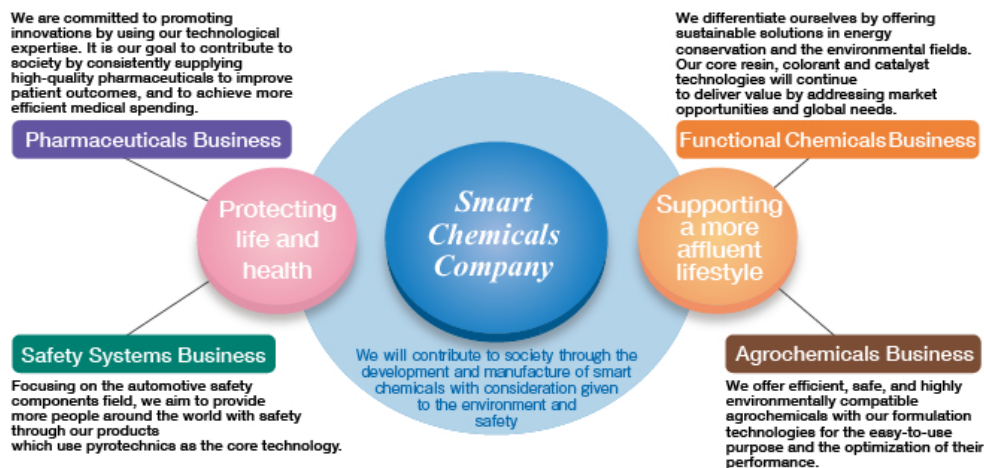
The Nippon Kayaku Group has adopted a corporate slogan called Global "sukima" ideas and is striving to develop Nippon Kayaku into a company that the world truly needs, by developing high value added products with unique technologies that stand out in niche markets and elsewhere.



[View larger image](#) 

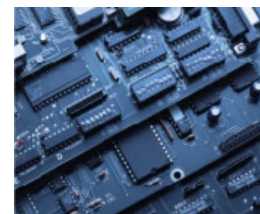
The Nippon Kayaku Group's Businesses

This section will take a closer look at the 4 core businesses of the Nippon Kayaku Group as well as products that they developed with unique technologies that contribute to the betterment of society.



Continually delivering functional chemicals with less environmental impacts and that contribute to energy efficiency

The Functional Chemicals Business is developing and supplying functional chemicals with less environmental impacts and that contribute to energy efficiency. For example, our environmentally friendly NC-3000 series of epoxy resin is able to cure with a high degree of flame resistance without adding a flame retardant such as phosphorous or halogen. These adhesives are used for not only semiconductor encapsulation but also printed circuit boards and other fields. The high degree of quality and reduced environmental impact of these products has been proven, earning them the status of de facto standard in the marketplace today.



In addition, we are contributing to energy and resource savings through the development of high yield catalysts for making acrylic acid and methacrylic acid as well as colorants for industrial inkjet printers that do not produce waste water yet create vivid, solid colors thanks to our long-standing colorant synthesis technologies. These have earned us a strong reputation among our customers.

Functional Chemicals Business

Pharmaceuticals Business

We are committed to prompting innovations by using our technological expertise. It is our goal to contribute to society by consistently supplying high-quality pharmaceuticals to improve patient outcomes, and to achieve more efficient medical spending.

Nippon Kayaku is now working on the development of polymeric micelle anti-cancer drugs through a joint Multi-national Phase III Clinical Study. In addition, we are also participating in a joint Multi-national Phase III Clinical Study of monoclonal antibody biosimilar treatments for breast cancer as part of our proactive efforts to develop biosimilar treatments following the success of FILGRASTIM BS and INFLIXIMAB BS, which have already been launched.



MINK Web – an informative site targeting medical professionals developed by Nippon Kayaku

We are committed to prompting innovations by using our technological expertise, including in the development of generic anti-cancer drugs. It is our goal to contribute to society by consistently supplying high-quality pharmaceuticals to improve patient outcomes, and to achieve more efficient medical spending.

Pharmaceuticals Business

Safety Systems Business

With explosives safety technologies as our core competencies, we are providing safety to more people around the world mainly through our automotive safety components.

Automobile production in Southeast Asia is expected to see strong growth rates, second only to China in the world, and nearly 60% of the market is occupied by Japanese automakers. In 2011, ASEAN NCAP, safety evaluation standards for new vehicles, was established, with safety testing commencing in 2013. This has dramatically increased the use of automotive safety components in automobiles. Given this, the Safety Systems Group examined market entry in Southeast Asia, with these discussions culminating in the establishment of Kayaku Safety Systems Malaysia Sdn. Bhd. in December

2012. The air bag inflators and micro gas generators for seatbelt pretensioners made here are exported within ASEAN and to India, contributing to automotive safety in these areas.

[Safety Systems Business](#)



Agrochemicals Business

Providing agrochemicals with excellent effects, safety and environmental compatibility together with formulation technologies that make them easy to use and increase performance

On February 15, 2016, the Agrochemicals Division launched spiracle-blocking insecticide Fuhmon[®], which is ideal for Integrated Pest management (IPM) that does not rely only on chemical pesticides. This product offers four unique features: (1) it is made from polyglyceryl fatty acid ester which is used as food additive; (2) there are no limitations on the number of applications and it can be used even the day prior to harvesting vegetables; (3) it can protect plants from damage by spider mites, aphids, and whiteflies simultaneously; and (4) it is effective against insects that have become resistant to conventional chemical pesticides. Fuhmon[®] contributes greatly to protecting plants from various pests, which in turn contributes to the stable production of agricultural crops. Going forward, we will continue to contribute to agriculture while developing and supplying technologies and materials required by all aspects of this field.



[Agrochemicals Business](#)

Research and Development

Researching the Needs of Tomorrow: R&D for Organic Semiconductor Materials

Electronics have drastically improved living standards since the 20th century. Today, electronics occupy an indispensable presence in many of the products we use every day, including computers, smartphones and medical equipment. One of the core components of these electronics is inorganic semiconductors.

Nippon Kayaku is researching and developing organic semiconductors as an alternative to inorganic semiconductors. Organic semiconductors can be used in a host of different products (products that bring our lives new and greater convenience) because they make it possible to make electronics softer. In addition, organic semiconductors can be printed, making the semiconductor manufacturing process more environmentally friendly and use less energy. Organic semiconductor materials are garnering much attention from academia and industry alike as a material that represents the key to the future of electronics.

Nippon Kayaku's organic semiconductor materials rate among the best in the world. We are also working closely with other leading research institutions in Japan and abroad to accelerate the commercialization of these technologies through our involvement in NEDO's consigned research project, the Japan Advanced Printed Electronics Technology Research Association (JAPER).

Going forward, Nippon Kayaku will seek to research new themes that capture the needs of tomorrow and to systematically develop businesses in the segment in order to make sustainable contributions to society.

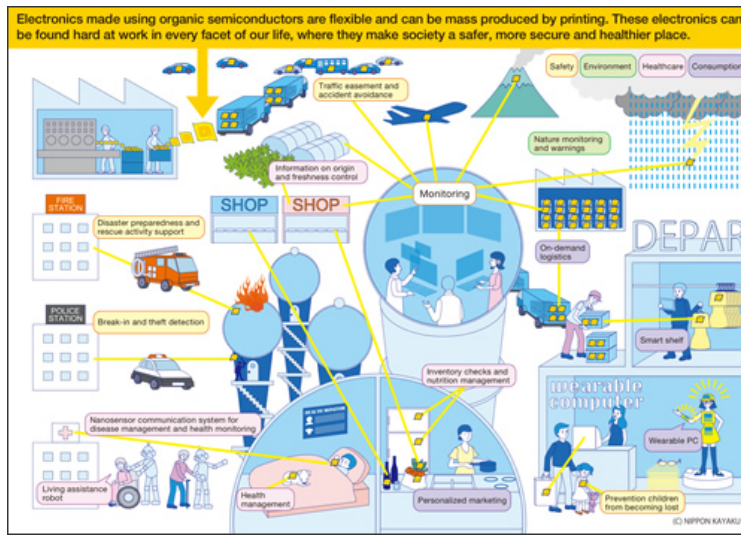
[Learn more about our research laboratories](#)



Inorganic semiconductor



Organic semiconductor



[View larger image](#)

Globalization of research activities

Following the policy of Nippon Kayaku's global management, the Research and Development Group is in the process of building a global R&D structure inclusive of overseas Group companies. While promoting greater interaction among researchers working for overseas subsidiaries, the Research and Development Group is carrying out the following activities from the perspective of CSR.

Hosting international internship students

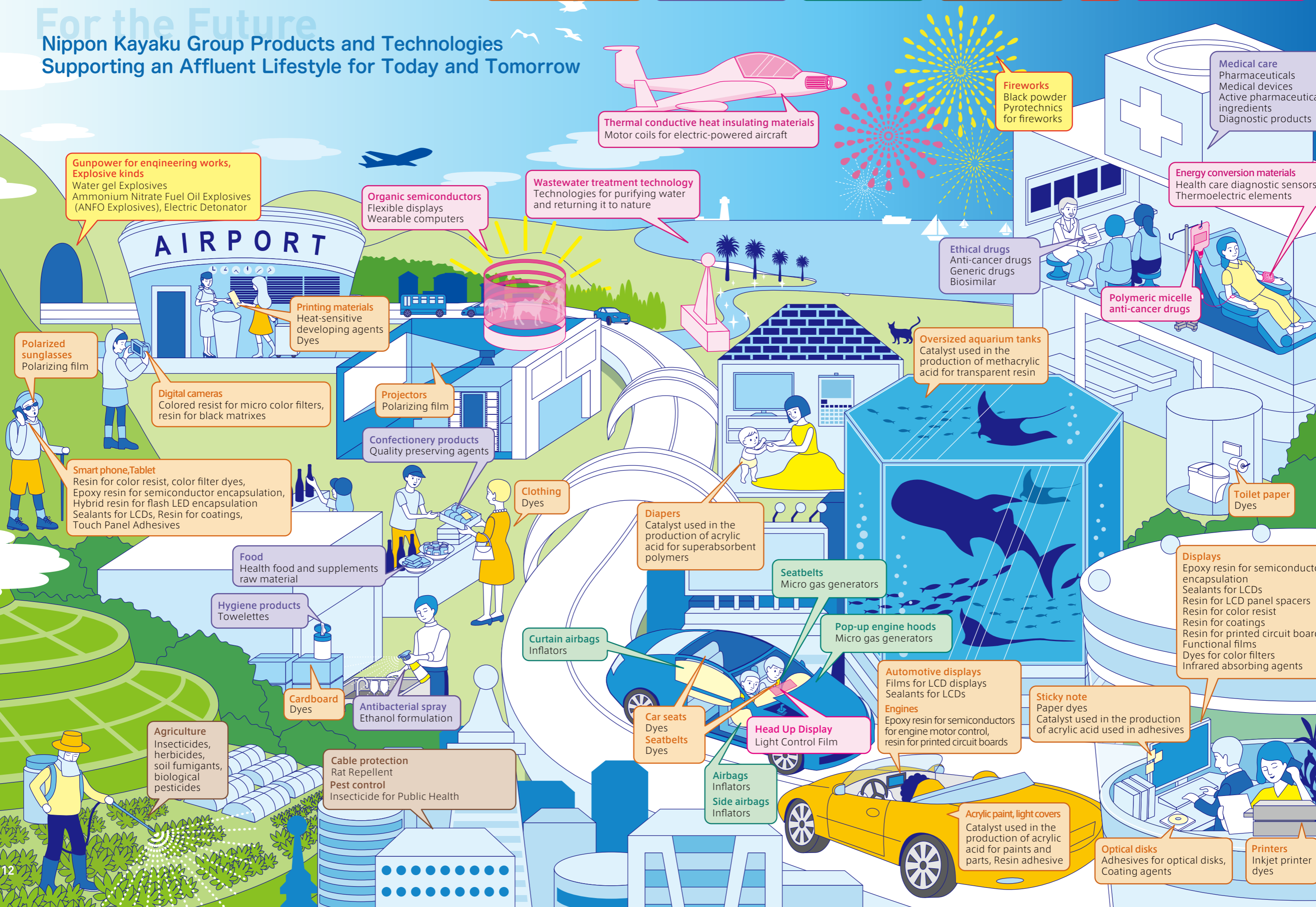
Nippon Kayaku hosts interns from both domestic and overseas universities. Interns engage in various activities at Nippon Kayaku's laboratories with a focus on research and development, while also learning about corporate activities and Japanese culture. At the same time our employees receive a boost in terms of motivation and stimulation by working together with these young interns. Going forward, through these internships, we will continue to globalize our corporate culture and contribute to international exchange as well as the education of overseas students.



Joint collaboration with overseas research institutes

Nippon Kayaku actively engages in joint research with research institutes located outside of Japan. We will continue to incorporate outcomes of universities and research institutes in an effort to create a sustainable society using innovative technologies and materials.

For the Future Nippon Kayaku Group Products and Technologies Supporting an Affluent Lifestyle for Today and Tomorrow



Gunpower for engineering works, Explosive kinds
Water gel Explosives
Ammonium Nitrate Fuel Oil Explosives (ANFO Explosives), Electric Detonator

Thermal conductive heat insulating materials
Motor coils for electric-powered aircraft

Fireworks
Black powder
Pyrotechnics for fireworks

Medical care
Pharmaceuticals
Medical devices
Active pharmaceutical ingredients
Diagnostic products

Energy conversion materials
Health care diagnostic sensors
Thermoelectric elements

Wastewater treatment technology
Technologies for purifying water and returning it to nature

Organic semiconductors
Flexible displays
Wearable computers

Ethical drugs
Anti-cancer drugs
Generic drugs
Biosimilar

Polymeric micelle anti-cancer drugs

Oversized aquarium tanks
Catalyst used in the production of methacrylic acid for transparent resin

Printing materials
Heat-sensitive developing agents
Dyes

Polarized sunglasses
Polarizing film

Digital cameras
Colored resist for micro color filters, resin for black matrixes

Projectors
Polarizing film

Confectionery products
Quality preserving agents

Smart phone, Tablet
Resin for color resist, color filter dyes, Epoxy resin for semiconductor encapsulation, Hybrid resin for flash LED encapsulation, Sealants for LCDs, Resin for coatings, Touch Panel Adhesives

Clothing
Dyes

Diapers
Catalyst used in the production of acrylic acid for superabsorbent polymers

Toilet paper
Dyes

Food
Health food and supplements raw material

Hygiene products
Towelettes

Seatbelts
Micro gas generators

Pop-up engine hoods
Micro gas generators

Displays
Epoxy resin for semiconductor encapsulation
Sealants for LCDs
Resin for LCD panel spacers
Resin for color resist
Resin for coatings
Resin for printed circuit boards
Functional films
Dyes for color filters
Infrared absorbing agents

Cardboard
Dyes

Antibacterial spray
Ethanol formulation

Curtain airbags
Inflators

Automotive displays
Films for LCD displays
Sealants for LCDs
Engines
Epoxy resin for semiconductors for engine motor control, resin for printed circuit boards

Sticky note
Paper dyes
Catalyst used in the production of acrylic acid used in adhesives

Agriculture
Insecticides, herbicides, soil fumigants, biological pesticides

Cable protection
Rat Repellent
Pest control
Insecticide for Public Health

Car seats
Dyes
Seatbelts
Dyes

Head Up Display
Light Control Film

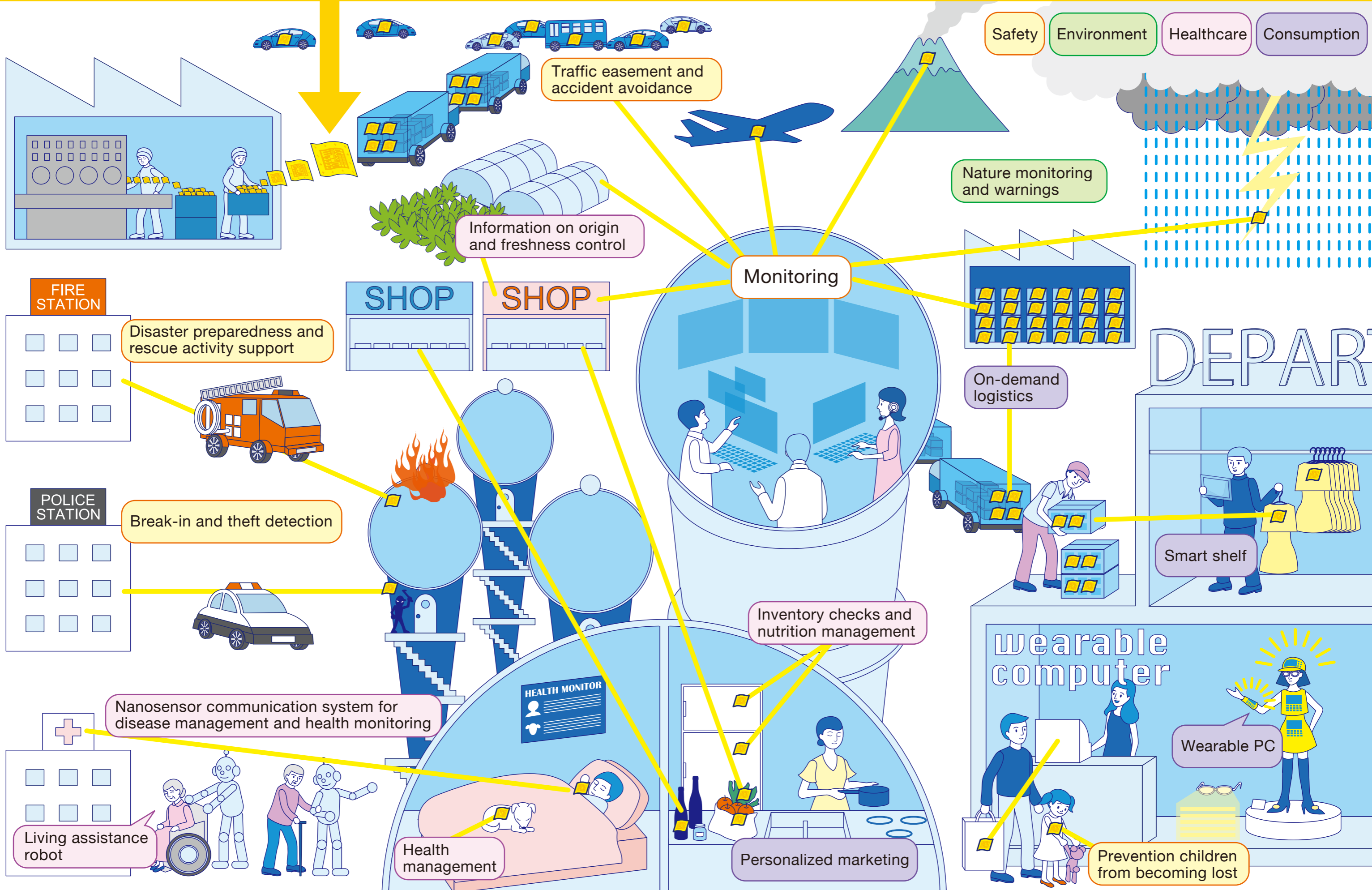
Airbags
Inflators
Side airbags
Inflators

Acrylic paint, light covers
Catalyst used in the production of acrylic acid for paints and parts, Resin adhesive

Optical disks
Adhesives for optical disks, Coating agents

Printers
Inkjet printer dyes

Electronics made using organic semiconductors are flexible and can be mass produced by printing. These electronics can be found hard at work in every facet of our life, where they make society a safer, more secure and healthier place.



Safety Environment Healthcare Consumption

Monitoring

Traffic easement and accident avoidance

Nature monitoring and warnings

Information on origin and freshness control

On-demand logistics

Disaster preparedness and rescue activity support

SHOP

SHOP

Smart shelf

Break-in and theft detection

Inventory checks and nutrition management

Nanosensor communication system for disease management and health monitoring

HEALTH MONITOR

Health management

Personalized marketing

wearable computer

Wearable PC

Prevention children from becoming lost

Living assistance robot



Fulfilling Our Responsibility to Society

The Nippon Kayaku Group continually carries out CSR activities that foster trust among all of its stakeholders, including customers, business partners, employees, shareholders, society and local communities.

Initiatives with Our Customers

The Nippon Kayaku Group continually strives to develop sound products and services that are both safe and reliable in order to provide the best possible solutions to its customers around the world.

Initiatives with Our Business Partners and Investors

The Nippon Kayaku Group proactively communicates with its suppliers, medical institutions, and investors.

Initiatives with Society

The Nippon Kayaku Group dynamically communicates with local communities with the goal of becoming a company closely rooted in the community.

Initiatives with Our Employees

The Nippon Kayaku Group provides workplaces where employees can contribute to society through their achievements and work comfortably with peace of mind.





— Initiatives with Our Customers

The Nippon Kayaku Group recognizes that developing a quality system and being mindful of quality improve as well as service safety and reliability are paramount to improving customer satisfaction and to providing the best possible solutions to its customers around the world.

Revamped the Agrochemicals Website to Make it Easier to Use and More Accessible

The Agrochemicals Business revamped its website, making it smartphone compatible, given the rising use of smartphones, in an effort to make the website—and as an extension of our products—easier to use and more accessible to customers.

The site now features mainly the following three new features,

1. Smartphone compatibility
2. Search engine by crop and insect pest name
3. Q&A section



Given its close connection to agriculture, the Agrochemicals Business decided to release the website updates on February 19, 2016, which represents the rainwater solar term in the 24 divisions of the solar year. This rainwater solar term represents the time of the year when snow turns to rain and when ice on the ground melts, and as a result, for countless generations this date has marked the time for farmers to prepare for the coming season. This update represents an ideal opportunity to create a closer relationship with customers and our hope that we can make our products easier to understand and accessible to all customers.

[Link to the Agrochemicals Business website](#) ■

Medical Information Service Center and Securing Customer Trust

The Medical Information Service Center receives toll free calls from patients and medical professionals with various questions relating to our pharmaceuticals and medical devices, such as anti-cancer drugs, treatments for autoimmune diseases and intravascular embolic materials. Staff at the Medical Information Service Center carefully and accurately respond to each inquiry to ensure that all of the products supplied by Nippon Kayaku are of the highest possible quality. We also conduct surveys to check whether our response meets the expectations of the customer as part of our continual improvement initiatives. Additionally, staff work with medical representatives (MRs) that visit medical facilities to ensure they can provide information that is beneficial to patients, while customer requests and opinions are proposed and reported to each relevant department in charge within the company. The Medical Information Service Center is committed to improving medical care under the slogan "provide proper usage information and improve customer satisfaction in all situations."



Medical Information Service Center

Quality Management Policy

The Nippon Kayaku Group has continually worked to maintain and improve the quality of its products as part of its efforts to realize the KAYAKU spirit. Our fundamental policy can be found within [the Declaration on Health, Safety, Environmental Protection and Quality](#).

Our business activities are carried out under a quality assurance management system. This ensures we strive to continually improve our quality management technologies as well as work to reduce customer complaints and quality process mishaps, while also preventing recurrences. Our goal is to maintain positive communication with customers and further improve customer satisfaction through product quality.





Initiatives with Our Business Partners and Investors

The Nippon Kayaku Group established the CSR Procurement Policy in 2015. We are also proactively communicating with the suppliers of our business partners and healthcare professionals.

Initiatives for CSR Procurement

In fiscal 2015, we commenced new initiatives for promoting mutual development with suppliers through daily operations, requesting they work with us to ensure stable procurement and quality. Because we steadfastly believe that the inability to fulfill social responsibilities impede the path to stable procurement for all parties involved, we implemented the operations necessary for our procurement departments to achieve a CSR-centered management foundation, focusing on improving communication with our suppliers, and fulfilling our social responsibilities for human rights, labor, and environmental conservation.

Over the last year, we first promoted the understanding of, and awareness about CSR procurement within our procurement departments. Next, we gathered information about local business practices and business ethics in order to raise awareness about CSR procurement among our overseas group companies. Going forward, we will continue to educate and raise awareness of suppliers while also encouraging the sharing of information among group companies to further enhance CSR procurement practices together.

[CSR Procurement Guidebook](#) 



Holding purchasing briefings

The Safety Systems Group organizes purchasing briefings once every year for its key suppliers for raw materials. This briefing includes: presentations about the Safety Systems Group's earnings forecast for the current fiscal year; business plan for the subsequent fiscal years; status of the production system; development plan; and future business vision. The purpose for this annual briefing is to provide information useful to our partner companies for their business planning.

All of the Safety Systems Group's partner companies form an integral part of the automotive industry supply chain. This requires the ability to continuously supply high quality, low cost products that are delivered on time, while responding promptly to changes in conditions such as raw materials prices and foreign exchange volatility. We strive to provide useful and important information to our partner companies as much as possible, to facilitate open communication with each other.

This year, a partner company which promptly adjusted their production capacities in order to keep up with our increases in component demand was given an Outstanding Partner Company Award.



Purchasing briefing

Communicating with Investors

 Earnings Presentations

We host earnings presentations for institutional investors and securities analysts in Japan following the announcements of our interim and fiscal year-end results. Nippon Kayaku's entire executive team, including the president, attends these presentations where we provide information on our financial results, earnings forecast and future management strategies. We also hold teleconferences during the first and third quarters to provide mid-term updates.



Earnings Presentations

One-on-one Meetings

We hold one-on-one meetings to communicate directly with institutional investors and securities analysts.

Open House Tours at Plants

We host open house tours of our plants and R&D briefings for institutional investors and securities analysts every year, to promote better understanding of Nippon Kayaku's business activities.





— Initiatives for Society

The Nippon Kayaku Group aims to be a company closely rooted in communities through its involvement at the local level, proactive engagement with all stakeholders and support for the educational needs of the next generation.

Launch of IBD-INFO

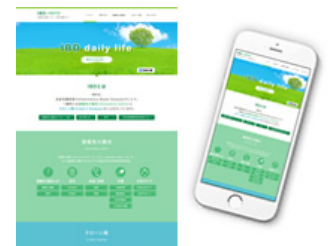
In April 2015, we launched IBD-INFO as an informative microsite for IBD patients.

IBD stands for Inflammatory Bowel Disease. Generally, IBD refers to Ulcerative Colitis and Crohn's Disease. The microsite IBD-INFO provides easy-to-understand commentary from a healthcare professional about the symptoms of Ulcerative Colitis and Crohn's disease as well as exams, diagnosis, treatment and daily care, among other topics.

The microsite features a host of different content about causes and symptoms, treatment methods, daily care, and public subsidies for defraying healthcare costs, so as to provide patients with an extensive resource of need-to-know information. Additionally, articles on the latest in IBD treatment and care featuring interviews with specialist physicians are regularly published on the microsite as well.

The goal of this microsite is to broaden patient understanding and empower them with the correct knowledge so that they will be more motivated during the treatment process.

[IBD-INFO](#) 



Launch of Informational Microsite "RHEUMATISM RA · RA · RA"

The microsite "RHEUMATISM RA · RA · RA" was launched in February 2015 to educate people living with Rheumatoid arthritis. This site was created with a commitment to serve as a close, everyday partner for people with Rheumatoid arthritis by providing emotional support.

The site, which is also compatible with smartphones, offers an easy-to-use platform that is user friendly, including oversized icons that are easy to touch. The site offers various content covering the topics that patients want to know about, including the causes of Rheumatoid arthritis, symptoms, and treatment options, a long with medical costs involved, care services and a hospital search function.

Additionally, the site provides information about Japan's high cost medical care benefit system accessible for the treatment of Rheumatoid arthritis and also a medical cost reimbursement calculator. The video collection of exercises for Rheumatoid arthritis patients selected by the editorial supervisor, who is a specialist in rheumatology, can be watched at home where patients can also try them out at their convenience.

The phrase "Feeling Happy" and the four leaf clover mark form the logo used by Nippon Kayaku's immunology business. Like a four leaf clover, we hope to play an integral role in patient's lives and provide emotional support. New perspectives play an important role in the treatment process and making life more enjoyable. Our hope is to contribute to each and every patient "Feeling Happy."



The Pink Ribbon Campaign

The Pink Ribbon Campaign was launched by Nippon Kayaku in 2004 to convey the importance of early detection, early diagnosis and early treatment of breast cancer. Fiscal 2015 marked the twelfth year of these activities.

The campaign includes running a breast cancer awareness website, employees wearing Pink Ribbon Badges, and handing out items that help raise awareness such as bumper stickers. At first these items were handed out at the closer station nearest to our corporate head office, but starting in fiscal 2012 we handed items out at the railway stations closest to all of our business sites in Japan (Nippon Kayaku Fukuyama, Nippon Kayaku Tokyo, Asa Plant, Takasaki Plant, Himeji Plant, and the Tokyo), where we also lobbied passersby about the importance of breast cancer screenings.



Kayami – the Nippon Kayaku Pink Ribbon campaign character

The Pink Ribbon Campaign Launched at INDET SAFETY SYSTEMS a.s. (ISS)

Located in the Czech Republic, ISS is a subsidiary of Nippon Kayaku established in 1999 that manufactures automotive safety components. From October 12 to 16, 2015, ISS launched the Pink Ribbon campaign for the very first time by cooperating with local organizations working to raise awareness about the importance of breast cancer screenings. In addition to posters, ISS created and handed out leaflets about how to conduct self exams, and magnets with the Pink Ribbon logo. The magnet features a bottle opener so that it will serve as a reminder to people living in the Czech Republic whenever they drink beer, a favorite local pastime as the country has the largest per capita beer consumption in the world. The campaign also appeared in local newspapers and on TV shows.



Employee briefing

Employee briefings were held at each department to raise awareness about the campaign internally. Some employees were shocked to learn that men could contract breast cancer, too.



Breast Cancer Info Navi

Breast Cancer Info Navi was launched in 2006 as an informative website for breast cancer patients, and in October 2013, the site was completely revamped during Pink Ribbon Month.

There are a number of breast cancer websites on the Internet, so during the revamping process Nippon Kayaku considered how it could provide a unique touch the new website. We decided to focus on a more specialized website that provides information from specialist physicians and pharmacists to not only breast cancer patients and their families but all women.



The redesigned website was also linked with the Nippon Kayaku Group's Pink Ribbon activities, including contents related to the Pink Ribbon campaign's mascot Kayami. Breast Cancer Info Navi is a breast cancer website intended to help all women live a more vibrant and successful life.

Asunaro House – Supporting Families of Children with Intractable Diseases

The Nippon Kayaku Group, as part of the commemorative projects marking its 80th anniversary and under the motto of "Let's assist children with intractable diseases and their families," owns and operates Asunaro House, an extended-stay facility for caregivers in Saitama City, Saitama Prefecture. This facility safeguards users' privacy and provides parents with a child fighting an illness an opportunity to meet others like themselves, which helps to alleviate the mental burden placed on parents.



Providing Support for LRI Activities

The Long-range Research Initiative (LRI) is a joint initiative of the chemical industries of Japan, the United States and Europe. Part of the voluntary activities of International Council of Chemical Associations (ICCA), LRI supports long-term research into the effects of chemicals on human health and the environment, with focus on endocrine disrupting effects, neurotoxicity, chemical carcinogenesis, immunotoxicity and elaborating risk factors.

Nippon Kayaku has actively supported LRI from its start in 1999 by offering financial support for LRI activities. and attending the committee.

Community Engagement

The Nippon Kayaku Group strives to foster understanding in its business activities among local residents through plant festivals, opening its sites to the public, cleanup activities and round-table talks.

Going forward, we will organize various platforms to proactively engage with the local residents as part of our goal of becoming a company that is closely rooted in the local community.

▼ Polatechno Co., Ltd. Wrap Advertising on a Train

▼ Moxtek, Inc Homeless Outreach in the Community

▼ MicroChem Corp. Toys For Tots

▼ Kayaku Safety Systems de Mexico, S.A. de C.V. Continuing with its Support for Local Education

▼ INDET SAFETY SYSTEMS a.s. Helping Defray the Cost of a Wheelchair

▼ Kayaku Safety Systems Malaysia Sdn.Bhd. Relationship Building with the Local Community

▼ Summer Vacation Children's Chemistry Experiment Show 2015

▼ Takasaki Plant Fureai Festival

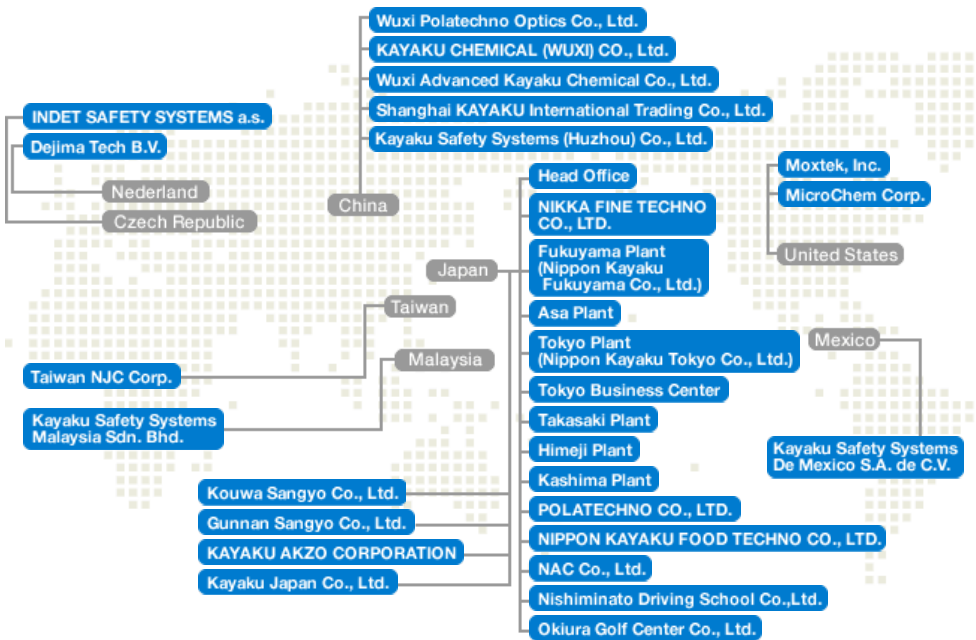
▼ Takasaki Plant and Gunnan Sangyo Co., Ltd. Potato Digging Event

Nippon Kayaku's Agreements with Local Authorities

Business Site	Agreement	Local Authority
Fukuyama Plant	Agreement on environmental pollution control	Hiroshima Prefecture and Fukuyama City
Asa Plant	Agreement on water pollution control	Yamaguchi Prefectural Fisheries Cooperative
	Agreement on environmental protection	Sanyo-Onoda City
Tokyo Plant	Green agreement	Adachi City

	Agreement on establishing Colored Effluent Issue Council	Tokyo Metropolitan Bureau of Sewerage No. 2 Control Office
	Agreement on mutual disaster relief support in case of an earthquake	Shinden Neighborhood Association and Shinden 1-chome Residents' Association in Adachi City
	Agreement to provide the general public with access to a small water pump storage facility	Senju Fire Department
Tokyo Business Office	Provision of fire fighting facilities 1. Provision of water for firefighting 2. Deployment of a boat for rescues 3. Fire fighting group cooperation site 4. Use of rooftop as a lookout	Tokyo Fire Department Akabane Fire Station
Takasaki Plant	Agreement on assistance from voluntary fire fighting brigade	Regional fire departments including Takasaki City
Himeji Plant	Memorandum on effluent control	Himeji City
Kashima Plant	Agreement on environmental pollution control	Ibaraki Prefecture, Kashima City, Kamisu City

Community Engagement through Plant Festivals and Other Events



Examples of Community Engagement by Nippon Kayaku

Business site	Category	Details
Head Office	Education	Participation in children's chemistry experiment show
		Hosting of workshops for students in Tokyo
	Head office tours	Company tours for employees and their families
	Awareness raising activities	Pink Ribbon activities
	Assistance	Assistance provided to AgriFuture Japan (development of farm operators)
	Donations	Japan Association of Corporate Executive IPPO IPPO NIPPON: 8th donation for earthquake reconstruction assistance
		Tokyo Metropolitan Government Joint Fundraising: FY2014 Akaihane Joint Fundraising
		Japanese Red Cross Society: FY2014 Japanese Red Cross Society activity fund
		Japan Anti-tuberculosis Association: Double-barred cross seal fundraising
Guidelines on Transparency in Relationships between Nippon Kayaku and Medical Institutions		
	Guidelines on Transparency in Relationships between Nippon Kayaku and Patients	
Fukuyama Plant (Nippon Kayaku Fukuyama Co., Ltd.)	Festivals	Hosting of the Shining Fukuyama Festival
		Sponsorship of the Fukuyama Rose Festival and summer festivals in the Fukuyama, Akebono, Shingai and Minoshima school districts
		Sponsorship of cultural festivals in the Akebono, Shingai and Minoshima school districts

		Sponsorship of the Fukuyama Fureai and Welfare Festival
	Awareness raising activities	Pink Ribbon activities
	Competitions	Hosting of tennis tournament
	Opening facilities to the public	Soccer field, baseball field, and tennis court, etc.
	Cleanups	Holds cleanup activities around the plant
Asa Plant	Festivals	Hosts the Wasshoi! Kayaku Festival (co-sponsored by Kowa Sangyo, KAYAKU AKZO, and Kayaku Japan)
	Awareness raising activities	Pink Ribbon activities
	Competitions	Organizes a city youth volleyball tournament
	Discussions	Holds community roundtable talks (together with KAYAKU AKZO for neighborhood associations surrounding the Kawahigashi Plant)
	Opening facilities to the public	Gymnasium
	Cleanups	Picks up trash along the Asa River (together with the Asa Branch of the labor union)
Tokyo Plant (Nippon Kayaku Tokyo Co., Ltd.)	Festivals	Hosts the Satsuki Festival
		Hosts a mochi-making festival
	Lectures open to the public	Public lectures for elementary school students (dyes and dyeing technologies)
	Plant tours	Hosts plant tours
	Awareness raising activities	Pink Ribbon activities
	Opening facilities to the public	Opens parking lot (for use by community baseball teams during their season)
	Cleanups	Holds cleanup activities in and around the plant
Tokyo Business Center	Education	Holds summer break lectures for elementary school students
	Festivals	Hosts a spring festival
		Participates in the Kumano Shrine Festival
		Hosts a mochi-making festival
	Awareness raising to the public	Pink Ribbon activities
	Discussions	Hosts briefings for leaders of Shimo 3 and 4 neighborhood associations
	Opening facilities to the public	Provides area for Akabane Fire Department training exercises
	Traffic safety	Provides traffic safety instructions at Kita-hondori Street during the nationwide traffic safety campaign (Tokyo Business District Traffic Safety Promotion Committee)
	Donations	Donates proceeds from certain cafeteria items to those in need
		Support for the reconstruction of Eastern Japan
		Helps provide vaccines to children around the world through PET bottle recycling
Cleanups	Holds cleanup activities around the Tokyo Business Center	
	Holds the Cleanup Campaign (Akabane Station to Arakawa River)	
Takasaki Plant	Festivals	Hosts a fureai festival
		Participates in the Iwahana Kosodate Kanzeon Festival
		Hosts a summer dance performance (together with Iwahana Town)
	Awareness raising to the public	Pink Ribbon activities
	Events	Sweet potato planting and harvesting with children from Iwahana Daycare
	Plant tours	Plant tours and practical learning for community elementary, junior high and high school students
	Discussions	Roundtable discussions with community leaders
	Opening facilities to the public	Opens facilities to the public (baseball field, gymnasium, tennis court, and plaza in front of Ten Shrine)

	(only for Iwahana Town)	
	Donations	Takasaki Festival (sponsors fireworks display)
		Iwahana Kosodate Kanzeon Festival (sponsors fireworks display)
Himeji Plant	Festivals	Summer fireworks festival (weather permitted)
	Awareness raising to the public	Pink Ribbon activities
	Opening facilities to the public	Opens its parking lot (for local sports festivals of elementary and junior high schools)
	Cleanups	Holds cleanup activities around the plant
Kashima Plant	Tours	Company tours for employees and their families
	Discussions	Hosts roundtable talks with Hasaki District Administration members
	Traffic safety	Organizes illegal parking patrols within the Hasaki District Industrial Park
	Cleanups	Holds cleanup activities together with the Agrochemicals Laboratories
		Participates in cleanup activities within the Hasaki District Industrial Park

Examples of Community Engagement by Group Companies

Business site	Category	Details
POLATECHNO CO., LTD.	Education	Provides polarizing plate materials to the Japan Science Museum
	Donations	Donates used computers to a facility for the physically disabled
	Cleanups	Holds cleanup activities around the plant
Moxtek, Inc.	Education	Supports involvement in the First Lego League (organized by the University of Utah)
	Assistance	Participates in homeless assistance program run by the Community Action Services and Food Bank
Wuxi Polatechno Optics Co., Ltd.	Donations	Donates to a government run fund for poverty-stricken people in need
	Blood donations	Blood donations
	Open facilities to the public	Sets up and opens badminton courts to the public
	Provision	Develops roads, manages lighting, manages greenery, and picks up trash
Dejima Tech B.V.	Participation in competitions	Supports employee participation in a community marathon
	Donations	Uses UNICEF postcards to send New Year's greetings
NIKKA FINE TECHNO CO., LTD.	Sponsorship	Fukui Office: History Festival held annually by the Fukui Chamber of Commerce and Industry
KAYAKU CHEMICAL (WUXI) CO., Ltd.	Donations	Donates to a government run fund for poverty-stricken people in need
MicroChem Corp.	Donations	Donates to Toys for Tots
	Donations	Donates to fight hunger
	Donations	Donations to Boy Scouts of America for an Eagle Scout Project
	Donations	Donations to Minuteman Flames Youth Hockey team
Wuxi Advanced Kayaku Chemical Co., Ltd.	Donations	Donates to a government run fund for poverty-stricken people in need
Shanghai KAYAKU International Trading Co., Ltd.	Volunteering	Volunteers for the Shanghai Cherry Blossom Festival organized by the Consulate
		Volunteers in the Japanese cultural class called the Power of Picture Books organized by the Consulate
NIPPON KAYAKU FOOD TECHNO CO., LTD.	Festivals	Co-hosts the Takasaki Plant Fureai Festival
		Sponsors and participates in the Iwahana Kosodate Kanzeon Festival
		Hosts and sponsors a summer dance performance (together with Iwahana Town)
	Awareness raising to the public	Pink Ribbon activities
NAC Co., Ltd.	Traffic safety	Provides traffic safety instructions at Kita-hondori Street during traffic safety week
	Cleanups	Holds cleanup activities around the Tokyo Business Center and Nippon Kayaku Tokyo

Taiwan NJC Corp.	Workshops	Participates in the Japan Chamber of Commerce and Industry's Pharmaceuticals Subcommittee
	Lectures/Events	Participates in events organized by the Japan Chamber of Commerce and Industry
	Committee activities	Participates in the Japan Chamber of Commerce and Industry's Intellectual Property Committee
INDET SAFETY SYSTEMS a.s.	Employees and their families	Family events
	Donations	Donates to kindergartens/elementary schools for the physically challenged
		Donates to groups supporting the physically challenged
		Donates to facilities that hire the physically disabled
		Donates to orphanages
		Donates to youth rehab facilities (alcoholism, etc.)
		Donates to assisted living facilities
	Donates to schools with explosives departments	
	Awareness raising to the public	Pink Ribbon activities
	Donations	Donates beds to hospitals
		Donates tatami to karate and aikido schools
	Sponsors	Sponsors a karate tournament
Sponsors a bicycle safety class		
Sponsors breast cancer organizations		
Kayaku Safety Systems (Huzhou) Co., Ltd.	Donations	Donates fans to assisted living facilities
	Tours	Plant tours for employees and their families
Kayaku Safety Systems De Mexico S.A. de C.V.	Employees and their families	Family day
		Healthy Campaign to lose weight "1 Kilo Menos" for employees
		High school study support plan for operators
		Supports schools
	Donations	Donates to Cervantino International Music Festival
	Donations	Donates kitchen articles
Donation for students of Japanese language of the UANL (Nuevo Leon University)		
Donates for Christmas (clothing, blankets, and toys, etc.)		
Kayaku Safety Systems Malaysia Sdn. Bhd.	Donations	Donation of projector sets for orphanages plus birthday lunches by employees Donations of gifts to local schools
Nishiminato Driving School Co.,Ltd.	Events	Traffic safety classes
	Donations	Disaster prevention charity
Okiura Golf Center Co., Ltd.	Events	Spring and autumn Okiura Golf Tournament
		Okiura Women's Golf Tournament
	Volunteering	Provides recycled cardboard boxes to social welfare company Joy Joy Work free of charge
Kouwa Sangyo Co., Ltd.	Festivals	Hosts the Wasshoi! Kayaku Festival (co-sponsored by the Asa Plant)
		Fureai Festival (sponsors with the Takasaki Plant)
Gunnan Sangyo Co., Ltd.	Donations	Iwahana Kosodate Kanzeon Festival (sponsors fireworks display)
	Events	Sweet potato planting and harvesting with children from Iwahana Daycare (jointly with the Takasaki Plant)
	Discussions	Hosts community roundtable talks (together with Asa Plant)
KAYAKU AKZO CORPORATION	Festivals	Hosts the Wasshoi! Kayaku Festival (co-sponsored by the NK Asa Plant)
	Donations	Donates articles to Koyo Elementary School
	Education	Dispatches instructors to universities and Tokuyama College
Dispatches instructors registered with the Japan Explosives Safety Association		
Dispatches instructors for outreach programs at Minamikata and Nobeoka Minami junior high schools		

Festivals	HEPCO Summer Festival (co-sponsored with Hokkaido Electric Power Company)
	Sugawa Shrine Festival (assistance)
	Hosts the Wasshoi! Kayaku Festival (co-sponsored by the NK Asa Plant)
Events	Zyounai Ekiden Marathon (hosts nearby youth sports groups together with the NK Asa Plant)
Donating blood	Hosts blood donation truck (together with the NK Asa Plant)
Opening facilities to the public	Opens its row of cherry trees to the public
Plant tours	Plant tours for colleges, government offices, teacher groups (training), local clubs, and Group companies
Cleanups	Holds trash pickup activities along the Asa River (together with the Asa Branch of the labor union)
	Holds cleanup activities around the Tokai Plant, Nagahama Coast and Hamakawa area



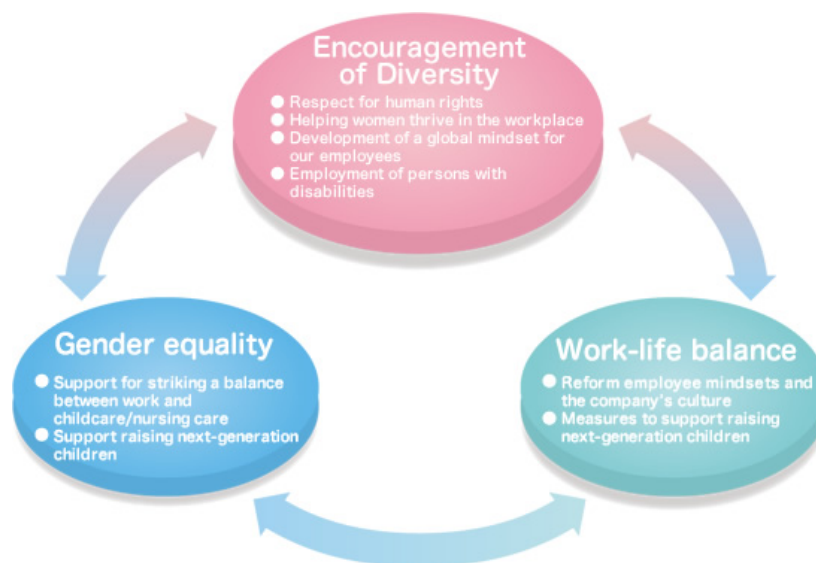
Initiatives for Employees

A company is nothing without its people. Nippon Kayaku respects the human rights of each and every employee, and strives to offer a workplace environment that offers peace of mind to employees. Our goal is to be a company where employees can grow personally and professionally through work and feel a sense of motivation in what they do.

Message from the Head of Administration Group

In order to realize the KAYAKU spirit, the Nippon Kayaku Group has developed a number of innovative systems and programs so that all employees can fulfill their individual responsibilities and roles with a sense of pride and self-confidence as key implementers of this vision. We are already in the 17th year of our position class system, which makes it possible to deploy and compensate human resources without focus placed on age, gender or academic history. The number of females promoted to manager positions also continues to increase with each passing year thanks to our appointment system that encourages a self-starter spirit and desire to take on challenges, and does not consider gender. Moreover, we are actively promoting diversity. This includes the re-hiring of nearly 100% of our employees who reach mandatory retirement age since the start of our senior partner program and supporting the employment of persons with disabilities through partnerships with schools for the disabled. Meanwhile, our business continues to become more global in nature. In line with this growth, we provide pre-departure and post completion training for expatriate employees and systemically carry out training for locally hired staff.

Moving forward, we will continue to develop systems with new, innovative thinking, unbound by conventional approaches or practices, so that we can respond flexibly to the changing business climate.



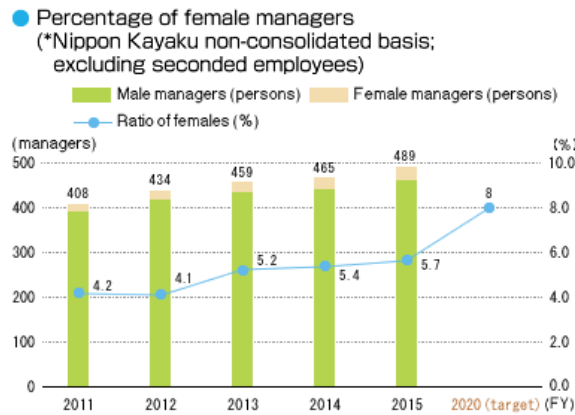
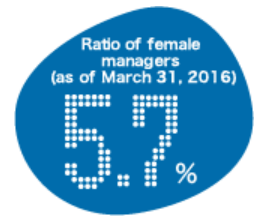
Encouraging Diversity

The Nippon Kayaku Group respects diversity and continually takes steps to enhance the competitiveness of the entire

Group by providing workplaces where employees can maximize their talents, thrive professionally, and feel a strong sense of motivation and belonging.

Promoting gender equality and work-life balance are essential to this end, and we believe that through such activities, we will be able to maintain a diverse work environment where all of our employees can utilize their talents to the fullest.

We also strive to offer employee-friendly workplaces that accommodate all employees regardless of gender, religion, nationality or disability. For example, when staff hired overseas come to Japan for training we ensure that meals and other accommodations are similar to those they have back home.



Helping women thrive in the workplace

The appointment of female managers is one aspect of the results of our initiatives to encourage diversity in the workplace. The ratio of our female managers increased to 5.7% as of March 31, 2016 (from 5.4% as of March 31, 2015). We will continue with our efforts to encourage the greater involvement of women in the workplace, with a goal to increase the percentage of female managers to 8% by the year 2020.

Employment of persons with disabilities

Nippon Kayaku is also committed to employing persons with disabilities based on its emphasis on diversity. As of March 31, 2016, we employed 62 persons with disabilities, meaning 1.9% of our total workforce has a disability. Society demands that we move swifter in hiring persons with disabilities and so in the future we will strengthen our efforts and continue to actively hire persons with intellectual disabilities wherever possible.

High expectations for female researchers

The Pharmaceutical Research Laboratories conducts basic research on pharmaceuticals while the Pharmaceuticals Development Division carries out development research (clinical trials) as the next step of the pharmaceutical approval process using the outcomes achieved in basic research. Pharmaceuticals whose efficacy is confirmed through clinical trials then move on to national government's review process for approval. Once approved, these pharmaceuticals are finally supplied to patients as Nippon Kayaku's proprietary drugs.

Some one-third of the employees working for the Pharmaceutical Research Laboratories and Pharmaceuticals Development Division to conduct pharmaceuticals research and development are female. There are many places for female researchers to thrive at Nippon Kayaku, and a number of female researchers present their research outcomes at academic societies in Japan and overseas. They also fulfill their duty as line managers with a number of other employees on their team. The research and development of pharmaceuticals is a very meaningful job because it involves making society a better place by supplying even better pharmaceuticals to patients who need them.



Pharmaceuticals Group
Pharmaceuticals Development Division
General Manager of Clinical Development
Management Department
Ms. Megumi Machida

The Act of Promotion of Women's Participation and Advancement in the Workplace took effect on April 1, 2016, meaning the time is now for companies to more actively employ women in the workplace. The greater involvement of women represents one aspect of diversity, and the more active role of female researchers will help maximize the abilities of each organization and make the Nippon Kayaku Group a better and stronger company.

Development of global human resources

As part of our diversity promotion efforts, we are working to develop not only Nippon Kayaku Group employees in Japan, but also those hired locally in other countries to develop a more global mindset to have success in international business. Foreign language training includes Overseas Language School Programs, while theme-based training includes English Intensive Courses and Training Programs for Overseas Posting. Also, support is provided to employees taking TOEIC or learning languages on their own. In addition to training, we partake in active personnel exchanges between overseas group companies and sites in Japan, with a strong support system in place for employees to experience various cultures and business environments. Going forward, we will continue to foster global mindsets in our employees through these training and development programs.

Expanding Programs for Gender Equality

The Nippon Kayaku Group is expanding in-house programs for gender equality and encouraging their utilization. In terms of our Next Generation Childcare Support measures, we have rolled out various programs that exceed legal requirements, beginning with our childcare leave program. More than 100% of eligible female employees take childcare leave, as the percentage taking childcare leave stood at 127% for the period from April 1, 2015 to March 31, 2016. Moving forward, we will seek to develop a workplace culture that encourages male employees to participate in childcare.

Special Paid Leave Program

The Special Paid Leave Program enables employees to set aside annual paid leave that will expire if not taken within a two year period and use it for nursing care obligations, training, volunteer work, infertility treatments, or to donate bone marrow. No complicated procedures are required to use this program, as employees simply have to apply by providing supporting proof for their activity. In addition, even after using the program once, employees can continue to accumulate paid leave to the maximum number of days for employees' convenience.

●Special Paid Leave Program	
Applicable Uses	No. of Days Allowed
To receive treatment of an injury or illness that requires at least 4 consecutive days of care To receive outpatient services for rehabilitation or aftercare (within the stated period on the physician-issued medical certificate)	Up to 60 days
To provide nursing care to an immediate family member, aunt or uncle	45 days
To participate in a training program or volunteer activities	30 days
Leave in conjunction with the use of active points from the Nippon Kayaku Cafeteria Plan	5 days
To take leave in order to receive a vaccination or medical exam for a child of preschool age	5 days
To receive fertility treatments	60 days
To allocate additional days to childcare leave	10 days
To allocate additional days to leave for providing care to a sick child	10 days

Work-life Balance

Better Managing Employee Work Hours

The Nippon Kayaku Group strives to properly ascertain employee work hours and conditions, to take action where needed, and to foster an environment where employees and management work together, in order to follow compliance best practices and safeguard employees' mental health. We are also working to reduce employees' overtime hours to increase the number of paid leave days taken by employees from the standpoint of improving work-life balance. To accomplish this, we must improve productivity and create greater added value. The Nippon Kayaku Group has various formats of employment including an employment system for older employees and contract employees. We also offer a wide range of training programs that help employees to achieve greater work-life balance.

●Work-life balance (Nippon Kayaku non-consolidated basis)			
	FY2013	FY2014	FY2015
Total working hours	1852.25	1852.25	1844.75
Overtime hours *Average monthly hours per employee	12.6	12.8	12.4
Number of paid leave days taken	10.5	9.9	10.6
Ratio of paid leave days taken	58.3%	55.1%	58.6%
Employees taking childcare leave (males)	3	1	0
Employees taking childcare leave (females)	6	16	20

Initiatives at Kayaku Safety Systems (Huzhou) Co., Ltd. Introduction of Office Automation (OA) System

KSH is a subsidiary of the Nippon Kayaku Group established in China in 2006 in order to manufacture automotive safety components. With the goal of improving its information systems, in fiscal 2015 KSH formulated a plan for an Office Automation (OA) system and began operating this system on December 1, 2015.

Until now, all application related work involved paper vouchers, but there were many cases of these vouchers not being delivered, lost or falsified, which inhibited day to day operations. In April 2014, a QC team was formed with eight members representing each department. This team worked on ways to make application related work paperless, analyzing and assessing company-wide operational flows to simplify and streamline work, to reduce paper usage and to help mitigate environmental impacts.

The most critical step proved to be the introduction of the OA system. KSH developed a customized OA system tailored to its own needs with the assistance of a vendor. It then distributed user IDs for all employees and changed to a system where all applications and approval work flow is done via computer. For example, this includes applications for the company seal, purchasing, overtime, paid leave, business travel, meeting rooms, visitors, company vehicles, expense accounting, and money transfers, among others.

This marks the first time that one of Nippon Kayaku's subsidiaries in China introduced an OA system. For KSH, this involved not only simplifying and streamlining operations, but also transforming the way the company works. In fiscal 2016, KSH plans to further advance the functions of this system and introduce a database system and payroll system.



Training programs

Various training programs are provided to employees according to their jobs positions. These comprehensive training programs are conducted so as to develop the skilled workforce that will lead Nippon Kayaku in the next generation.

■ Mandatory programs

In order to systematically develop the skills of the employees, training is imparted to the employees start immediately upon their joining the company. This is followed by mandatory programs after durations of one year and three years. Mandatory programs are also conducted as key employees are promoted to certain jobs and positions because of their improved work performance.



Training programs

■ Voluntary programs

A wide array of voluntary training programs is also available. These voluntary programs are tailored to specific employee characteristics and jobs. They facilitate self-improvement and boost the job-related problem-solving abilities of the employees.

■ Selective program

A program providing special leadership and management training is also available for promising candidates who are recommended by the superiors.

■ Kayaku Safety Systems (Huzhou) Co., Ltd. 2nd Family Tour

In March 2016, KSH hosted the 2nd Family Tour event. A total of 34 families and 54 individuals took part, touring the factory production lines, workplaces and R&D building, as well as employee facilities such as the cafeteria and changing rooms. The program was tailored so that participants could familiarize themselves and learn more about KSH's workplaces, nature of work and products. The 1st Family Tour event held last year received rave reviews, so this year there was a larger than expected turnout. Participants included not only family members, but the parents of employees as well.

There were many comments and questions at the meet-and-greet session to conclude the tour. These included the following:

"I was impressed with how well managed a Japanese company is. The standardized operations were also impressive."

"The production lines and offices were all very neat, tidy, and clean."

"The automated and semi-automated production lines were very efficient."

"I felt like all employees worked with a high degree of accountability."

"There are many employee benefits, making the company very employee-friendly."

KSH manufactures inflators and MGG, the most critical components of air bags and seatbelts, which keep passengers safe. This is why it is very important to have an employee-friendly workplace environment to ensure the highest possible standards of safety and quality.

The Family Tour represents an event that connects KSH employees and their families together. KSH plans on holding this event annually going forward.



■ Tokyo Business District Children's Tour

The Tokyo Business District hosts an annual tour for elementary school students of employees during their summer vacation.

In addition to teaching the children about what their parents do and where they work, children get to learn and experience how adults get paid for their work.

Specifically, this program entails the exchange of business cards with employees, making copies or shredding documents, and planting flowers, among other tasks, which differ each year.

The children receive pay for their work, which is then exchanged for keepsakes.

In addition, children get to ride a ferry on the Sumida River, take part in a walk rally onsite and eat lunch with family members at the cafeteria. After the program ends, the mother or father is encouraged to take afternoon paid leave so that they can all go home as a family. This program has become quite popular and attracts large numbers of participants every year.



General Business Operator Action Program under the Act for Measures to Support the Development of the Next Generation

We submitted our Action Plan for Measures to support the Development of the Next Generation action plan (from April 1, 2015 to March 31, 2018) to the Tokyo Labor Bureau for approval on March 27, 2015.



Kurumin logo

The Nippon Kayaku Senior Partner System

Starting in April 2006, we launched the Nippon Kayaku Senior Partner System to rehire employees that reached the mandatory retirement age to comply with changes made to the Act for Stabilization of Employment of Older Persons. The purpose of this program is for retired employees who are physically and mentally healthy, still motivated to work, and can be placed in charge of roles and responsibilities to fully contribute their career experiences and know-how even after mandatory retirement.

Company-wide Research Presentation Conference

The annual Company-wide Research Presentation Conference brings together researchers from the Research & Development Group engaged in R&D at four laboratories in Japan as well as officials from the head office including the President for oral and poster presentations of research outcomes. The event also features oral presentations and awards for patented inventions that greatly contribute to the company's businesses or technological development.

Nippon Kayaku highly values opportunities for management and researchers to directly engage one another to share research outcomes in a multifaceted manner and to enable researchers to promote themselves. Researchers are also able to create company-wide networks among themselves, while being asked questions and given advice after their oral presentations and poster presentations. This allows for the linkage and fusion of the many excellent technologies developed by Nippon Kayaku over the years, and contributes to problem solving and the creation of innovation.



Encouraging the Creation of Intellectual Properties

Nippon Kayaku develops its businesses and contributes to society by producing useful products through the creation and utilization of intellectual properties. To encourage the creation of intellectual properties, we have established several programs to reward employee inventions, with both monetary awards and commendations presented annually.

1. Performance Award Program and Invention Award Program

Our performance award program provides remuneration to employee patents that have contributed to sales. This program was initiated under the company's rule on the handling of employee inventions first prepared in 1963. This rule was created based on the provision of Japan's Patent Act and hence has been changed over the years with each modification to this law.

Researchers receive a certain percentage of the sales and licensing fees for each business year and retired employees, too, are eligible for such payments.

Employees responsible for inventions or patents that contribute particularly to society and sales are eligible to receive a lump sum payment, which incentivises the creation of intellectual properties.



2. Early Performance Contributions

Even for patents pending, if an invention has already made contributions to the performance of the Nippon Kayaku Group, the employee can receive remuneration known as an early performance contribution. This particular program was initiated in 2005 to properly recognize product inventions with a comparatively shorter lifecycle. This program serves to complement the previously mentioned Performance Award Program, and the fact that employees are eligible to receive payments based on sales for patents not yet registered makes for a very advanced program in the corporate world.

3. In-house Commendation for Excellent Technologies

At the Company-wide Research Presentation Conference held every year in July, a commendation ceremony is

held for employee inventions that have been patented or are patent pending during which time talented inventors are presented with monetary prizes and awards. These awards include the R&D Director's Award, presented at the recommendation of each laboratory head, Patent Pending Award, for inventors with many patents pending, and the Best Invention Award, recognizing highly advanced technological innovations. Recipients of the Best Invention Award are asked to present a lecture.



Fulfilling Our Responsibility to the Environment

The Nippon Kayaku Group prioritizes the environment, safety and quality in all aspects of its management and is working collectively together to reduce its impacts on the environment.

Environment, Health and Safety, and Quality Assurance Management System

We carry out organized activities to maintain and improve our environmental protection, health, safety and quality assurance efforts.

Health and Safety, and Quality Assurance Initiatives

We carry out various safety screenings and quality assessments to prevent accidents, occupational injuries and environmental accidents before they happen.

Initiatives for Reducing Environmental Impacts

We are working to reduce our impacts on the environment through various measures aimed at achieving our mid-term environmental targets for 2020.



Environment, Health and Safety, and Quality Assurance Management System

We prioritize health, safety and environmental matters in our management of the company as well as strive to reduce our impact on the environment through the reduction of environmental emissions across the entire Nippon Kayaku Group.

Declaration on Environment, Health and Safety, and Quality

The Nippon Kayaku Group, under the spirit of its CSR philosophy and Responsible Care,*1 has formulated the Declaration on Health, Safety, Environmental Protection and Quality, in order to maintain and enhance its environmental protection, health and safety and quality assurance practices. We are also implementing this declaration using organized activities.

The Declaration on Health, Safety, Environmental Protection and Quality

Enacted November 7, 1995
Amended September.1.2010

We will exert efforts as part of our unwavering commitment to contribute to humanity by creating products and technologies that protect and enhance people's health, life and comfort.

Our activities will not threaten the health and safety of people or property, nor be harmful to the environment.

Under our corporate motto of "KAYAKU spirit", which calls for providing society with the best possible products that meet customers' needs, by means of endless innovation and real cooperation, based on our high-esteemed ethics, we will conduct ourselves according to the following fundamental policies.

Fundamental Policies

1. We will be cognizant of the entire product lifecycle—from research and development, through production and sales to disposal—by evaluating effects on health, safety and the environment.
2. We will bear responsibility for the quality of our products, and will strive to develop and improve products that satisfy our customers.
3. We will increase our awareness toward the preservation of health, safety, environmental protection and quality of our products, and will endeavor to achieve the goals of no pollution, no accidents and no unsafe products.
4. We will provide necessary information about how to use and handle our products safely.
5. We will continue to promote the conservation of physical and energy resources as well as global warming countermeasures in order to contribute to the protection of the environment.
6. We will actively work to develop environmental protection technologies, as well as applications for such technologies.
7. We will make efforts to deepen communication about our operations and products among communities and government authorities to assure that proper understanding is achieved.

June. 25. 2015

President & Representative Director
Nippon Kayaku Co.,Ltd.

*1 Responsible Care: A voluntary initiative under which companies that manufacture or handle chemical substances actively work on ensuring an operation that is aware of the environment, safety and health throughout its entire value-chain; from product development through production, sales, consumption, and disposal of chemical substances. The initiative began in Canada in 1985, and has now spread to encompass activities at companies in over 50 countries around the world.

Message from the Head of Technical Operations Group

The Nippon Kayaku Group has grown on the back of chemical technologies and today it develops and manufactures a truly broad range of products. To satisfy the needs of the market, we harness our long-standing technologies and the latest knowledge each and every day to provide stable supplies of high quality products.

We recognize that safety requires the awareness of individual workers and the continual enhancement of supporting systems. In order to establish a stable operating structure for the generational change of manufacturing workers and the globalization of our production sites, we are focusing a great deal of efforts on education, training and follow up.

Environmental measures such as reducing CO₂ emissions, increasing recycling, and lowering waste emissions are necessary not only for regulatory compliance, but also for maintaining the future continuity of our business operations. We are currently working hard to find the best mix, technologically speaking, for our production processes and scale.

Going forward, we will continue constantly enhance quality and carry out Responsible Care activities in order to gain the satisfaction of all stakeholders.

Nippon Kayaku Group Responsible Care Policy Statement for FY2016

The every Nippon Kayaku Group company hereby commits to "Prioritize Safety Above All" in our efforts. And we agreed not only complying with related environmental and safety laws in Japan and Overseas, but also preventing environmental and safety accidents. Furthermore we ensured they can carry out activities together under the Declaration on Health, Safety, Environmental Protection and Quality, with the ultimate goal of realizing the KAYAKU spirit.

In fiscal 2016, we will continue with these efforts and in order to further promote the spirit of responsible care we have renamed our policy as Responsible Care Policy.

Nippon Kayaku Group Responsible Care Policy Statement for FY2016

The Nippon Kayaku Group companies hereby commit to "Prioritize Safety Above All" in our efforts, and have all employees work on our business activities in accordance with our Responsible Care Philosophy, and the Fundamental Polices stated in "The Declaration on Health, Safety, Environmental Protection and Quality".

Each group company shall work towards meeting their goals, set in accordance with their specific needs, status and country of location.

① Promoting "Zero Accidents, Zero Injuries"

ZERO SERIOUS ACCIDENTS, ZERO SERIOUS INJURIES

We shall proactively seek to prevent accidents and injuries through Risk Assessments, KYT/KYK (Danger Prediction Training/Activities) and the development of EH&S activities utilizing the best practices of each country and each of our Group Companies.

② Becoming an Eco-Friendly Company

MONITORING OUR GREENHOUSE GAS EMISSION LEVELS

We shall do our part to prevent global warming and reducing our environmental burden, by working towards specific goals suited to each country and each of our Group Companies.

③ Comprehensive Chemical Management

By utilizing SDS and responding to GHS, we shall properly understand the risks and hazards associated with each material we manage and thus actively promote Responsible Chemical Management.

Environment, Health and Safety, and Quality Assurance Initiatives

The Nippon Kayaku Group has made efforts to prevent accidents and injuries before they occur, achieve its environmental targets, respond in advance to natural disasters, develop and improve wastewater treatment technologies, carry out energy conservation activities, and promote employee health in order to strengthen its safety, health and environmental measures. In particular, over the past several years chemical companies in Japan

have been involved in a number of serious accidents and, therefore, we have gone to great lengths to prevent accidents from ever occurring by using the Japan Chemical Industry Association's Guidelines on Prevention of Accident Disaster to identify latent risks to our operations.

In fiscal 2016, we will continue to promote efforts in existing group-wide environmental, safety and health efforts, establishing systemized safety learning curriculum and carrying out uniform safety training across the entire company. In particular, we focus on pointing and calling, KYT, and pre-work KY (each occupational safety methods). Additionally, we continue to make efforts to prevent accidents and injuries from ever occurring by flushing out latent risks in our operations, including non-regular work. We will conduct legally required risk assessments on chemical substances in Japan and further improve the environmental, safety and health initiatives being carried out by Nippon Kayaku Group.

In terms of quality, we have worked toward improving quality management technologies and enhancing customer satisfaction (reducing customer complaints and quality process mishaps). Quality training focuses on practical applications for statistical analysis in the "Field data analysis" training course and also includes dispatching employees to outside lectures as well as onsite training at our plants covering internal audit procedures and other matters. In addition, we spread the world about quality improvement methods by publishing a collection of quality improvement examples.

We have continually carried out "Why-Why Analysis" to reinforce our recurrence prevention measures for customer complaints and quality process mishaps. Furthermore, in fiscal 2015 we conducted training for carrying out "Why-Why Analysis" at Group companies in China using a Chinese language version of this manual.

Creation of Our Own "Why-Why Analysis" Manual

There are many past examples of incidents involving non-compliance at Nippon Kayaku and similar events, and analysis indicated that insufficient efforts were being made to find the fundamental cause of these incidents. Therefore, we decided to implement why-why analysis in an effort to correctly identify relationships between cause and outcome, determine the fundamental cause, and prevent similar events from happening again. Each plant selects members to promote these efforts and we have also compiled our own "Why-Why Analysis" Manual (made available in both Japanese and Chinese language versions). This manual is used by every workplace for why-why analysis.



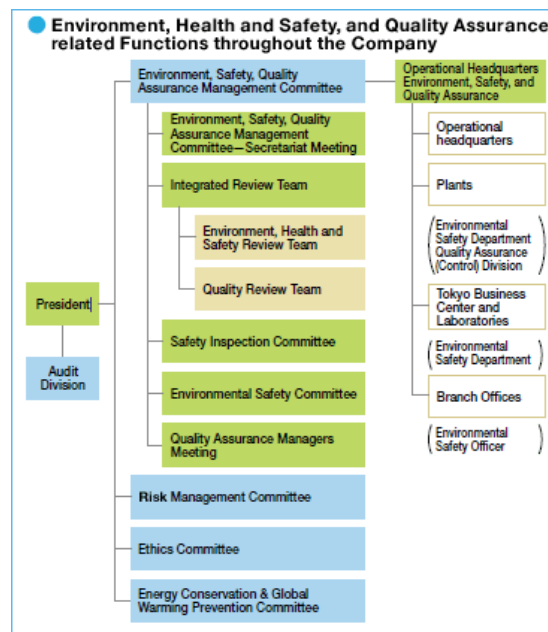
Basic safety training sessions were held for every workplace over a two-year period



Company-wide System for Managing Environment, Health and Safety, and Quality Assurance

The Nippon Kayaku Group takes part in organized activities at all of its sites and certain Group companies including overseas plants to ensure employees are aware of the environment, health and safety, and quality assurance as well as to maintain and improve quality assurance. These activities revolve around the Environment, Health and Safety, and Quality Assurance Management Committee, which is led by the President of Nippon Kayaku.

Structure of Environment, Health and Safety, and Quality Assurance related Functions throughout the Company



Management Structure at Our Business Sites

Each of our business sites has a committee on the health and safety or the environment, health and safety headed by the head of that particular site.

In addition, as a subordinate body, each business site also has a committee for promoting health and safety that consists of members representing each of the site's workplaces. Matters discussed by the Health and Safety Committee or the Environment, Health and Safety Committee are shared with all employees at roundtable meetings organized by the Health and Safety Promotion Committee. Conversely, matters discussed at roundtable meetings and by the Health and Safety Promotion Committee are communicated back to the Health and Safety Committee or the Environment, Health and Safety Committee as employee feedback.

Each business site's quality assurance (management) department leads Quality (Assurance) Committee meetings on a regular basis to check raw materials handled at each business site, examine customer complaints or quality issues concerning products made at that particular site, and deliberate on how to eliminate such complaints and quality issues. The committee also debates quality issues pertaining to new products, modified products and existing products to ensure that quality is constantly improved.



Certification of Quality Assurance System and Environmental Management System as well as GMP Authorization Status

The Nippon Kayaku Group has moved forward with acquiring ISO9001 and ISO14001 certification in order to provide and develop eco-friendly products and services of superior quality.

We started acquiring ISO14001 environmental management system certification in 1998. Since then all six of our plants have obtained certification, while other Group companies, including those outside of Japan, are in the process of obtaining this certification.

We began acquiring ISO9001 quality assurance system certification starting with our plants in 1995 and later expanded this scope to include business divisions, R&D departments, and Group companies outside of Japan.

Our overseas Group companies involved in the auto industry are working on obtaining ISO/TS 16949 certification, which adds requirements common to the auto industry to those of ISO 9001. The Takasaki Plant has obtained manufacturing approval under the Ministerial Ordinance on Standards for Manufacturing Control and Quality Control for Drugs and Quasi-drugs (GMP ordinance) and has obtained accreditation from the United States and Europe (EU).

Quality Assurance Management / Environment Management System Certified Workplaces

Workplace	● ISO9001 ■ ISO / TS16949*2	ISO14001
Fukuyama Plant	● June 1995	April 1999
Asa Plant	● Jan. 1995	Sept. 1998
Tokyo Plant	● June 1995	Dec. 1998
Takasaki Plant	● July 2003	Jan. 2000
Himeji Plant	● Sept. 2007	Jan. 2001
Kashima Plant	● Dec. 1995	March 1999
Functional Chemicals Group	● Jan. 2001	—
Pharmaceuticals Group	● Sept. 2003	—
Safety Systems Group	● Sept. 2007	—
Agrochemicals Division	● Sept. 2003	—
POLATECHNO CO., LTD.	● Jan. 1999	Aug. 2002
NIPPON KAYAKU FOOD TECHNO CO., LTD.	● Nov. 2003	—
KAYAKU CHEMICAL (WUXI) CO., LTD.	● March 2005	Aug. 2006
MicroChem Corp.	● April 2002	—
Wuxi Advanced Kayaku Chemical Co., Ltd.	● April 2007	July 2007
INDET SAFETY SYSTEMS a.s.	■ March 2002	Dec. 2002
Kayaku Safety Systems (Huzhou) Co., Ltd.	■ May 2014	—
Kayaku Safety Systems de Mexico, S.A. de C.V.	■ Feb 2014	—
MOXTEK, Inc.	● July, 2012	—

GMP*3 Approval Status	Workplace	Main governments
	Takasaki Plant	Japan, USA, Europe, Canada, Brazil

*2 ISO / TS16949: A world standard that was developed jointly by members of the IATF (International Automotive Task Force) to provide high quality

products to automobile users around the world.

*3 GMP: A Japanese standard issued by the Ministry of Health and Welfare as a ministerial ordinance in 1980. Stipulates production control and compliance standards to ensure supply of high quality pharmaceutical and medical products.

Kayaku Safety Systems (Huzhou) Co., Ltd. Obtained ISO 9001/TS 16949 Certification in Quality Management for the Auto Industry

Kayaku Safety Systems (Huzhou) Co., Ltd. (KSH) is a Nippon Kayaku Group company established in China in 2006 to manufacture automotive safety components.

In May 2014, KSH obtained TS 16949 certification in order to satisfy customer requirements and further stability quality based on the recognition that it manufactures products that directly affect the lives of people. TS 16949 is a quality management system standard for the automotive industry that fulfills the global procurement standards of for automotive components found in ISO 9001.

KSH launched in-house workshops on the system beginning in 2011 mandatory for all employees. After the two-year preparation period, education was initiated by a screening body starting in May 2013 where 32 employees became accredited as in-house screeners. The first audit carried out in December 2013 and the final audit was completed in March 2014. Later in May 2014, KSH was notified that it had successfully obtained certification. The audits included findings and instructions, while the final audit was extremely rigorous as it was carried out over a three-day period. In the end, the goal was achieved thanks to the strong conviction and dedication toward obtaining TS certification displayed by all KSH employees.

As a result, after building the foundation for global competitiveness, KSH now finds itself at the starting line as a manufacturing company specializing in automotive safety components. Moving forward, KSH will work toward the goal of becoming a better company and stronger company by obtaining ISO 14001 certification (environmental management systems) and OHSAS 18001 certification (occupational health and safety management systems).



ISO9001-TS16949



ISO audit in progress

Overview of Environment, Health and Safety and Quality Organizations

Environment, Safety, Quality Assurance Management Committee

The Environment, Safety, Quality Assurance Management Committee is a company-wide committee led by the President of Nippon Kayaku and comprised of executive officers responsible for business divisions, general managers of business divisions, and the General Manager of the Technical Operations Group. The committee formulates annual policy for the environment, health and safety and quality assurance, assesses the results and recommends improvements.

Environment, Safety, Quality Assurance Management Committee – Secretariat Meeting

The secretariat is comprised of general managers from the technical departments of each business division and from related departments of the head office. The secretariat deliberates fiscal year policy proposals and implementation status and reports back to the Environment, Safety, Quality Assurance Management Committee. It also reviews material matters related to the environment, health and safety, and quality assurance.

Central Integrated Reviews

An integrated review is a combination of the conventional environment and health and safety review and the quality review, which had been implemented independently targeting business sites and group companies. The Integrated Review Team is led by the General Manager of the Technical Operations Group, and is comprised of the Environment, Health and Safety Review Team, led by the General Manager of the Environmental Protection & Safety Division and the Quality Review Team, which is headed by General Manager of the Quality Assurance Division. The same review as before is being performed on the head office, business sites and group companies that received environment and health and safety reviews or quality reviews. The head office, divisions, business sites and group companies for which issues were identified during the review process are required to create and execute an improvement implementation plan. The results of central integrated reviews are reported to the Environment, Safety, Quality Assurance Management Committee.

Safety Screenings

Safety screenings are conducted when developing and manufacturing new products, designing new facilities and equipment, replacing facilities, changing raw materials, and outsourcing production. Risk and other assessments are also performed to prevent problems before they occur.

Environmental Safety Committee

The Environmental Safety Committee comprises environmental safety managers or representatives from the Environmental Safety Department of each business site and group company selected by the General Manager of the Environmental Protection & Safety Division. The committee debates material matters and problems associated with the implementation of environmental protection and safety activities.

Quality Assurance Managers Meeting

The Quality Assurance Managers Meeting comprises quality assurance managers from the head office, business sites and group companies selected by the General Manager of the Quality Assurance Division. The meeting deliberates the implementation status of quality assurance and quality control activities.



Health and Safety, and Quality Assurance Initiatives

The Nippon Kayaku Group engages in a wide range of health, safety, and quality assurance activities.

We conduct a safety screening whenever we institute new work flows or changing facilities and existing work flows, in order to prevent accidents, injuries or environmental accidents from happening. As part of our efforts, we also conduct risk assessments to ascertain inherent risk factors.

We have also created a database of troubles we have experienced in terms of our environmental, safety, and quality assurance initiatives that is used across all of our business sites. Central integrated environment, health and safety reviews and central integrated quality reviews are conducted at all of its sites and certain Group companies including five overseas plants.

Health and Safety Initiatives and Results

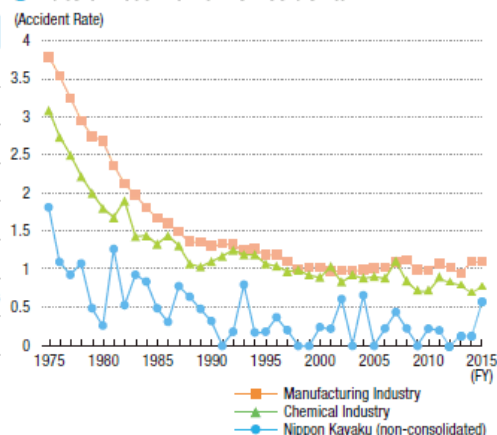
The Nippon Kayaku Group takes a systematic approach to eliminating accidents and injuries at its business sites. In fiscal 2015, however, there were total numbers of three lost worktime accidents, five non-lost worktime accidents, and two non-injury related accidents. Furthermore, in terms of the number of traffic accidents, the accident rate was among the worst in recent years at 16.8%. Given these results, in fiscal 2016 we will work on further improving activities aimed at preventing injuries and accidents.

Further in 2015 (calendar year) our Group companies including overseas plants there were total numbers of eleven non-lost worktime accidents, nine lost worktime accidents and five non-injury related accidents with no injury, it was almost the same as 2014 (calendar year).

● Fiscal 2015 Safety Targets and Performance

Items	Target	Actual
Major Injury / Accidents	0	0
Serious environmental accidents	0	0
Lost worktime accidents	0	3 cases
Accidents not accompanied by lost worktime	Rate of lost worktime accidents ¹ of under 1	0.95
	Less than 5 cases	5 cases
Work and commute-related automobile collisions	Less than 4%	16.8 %
	Less than 15 cases	64 cases
Non-injury workplace accidents	0	2 cases

● Rate of Lost Worktime Accidents



*1 Frequency rate of lost worktime accidents: It expressed in terms of numbers of deaths & injuries in industrial accidents per 1 million work-hours in the aggregate.

Initiatives to Enhance Quality Assurance Functions

In order to guarantee stable quality, we must carry out daily quality control activities with certainty and continually improve quality control techniques. In our plants we utilize quality control methods such as control charts, conduct quality patrols, carry out QYT* activities, carefully

manage changes and modifications, and implement various improvement activities. We also provide various training opportunities to employees in order to improve and promote the use of quality control techniques.

In order to bolster the capabilities of each workplace, we set up a Why-Why analysis promotion team comprising members from our six plants located in Japan, and we promoted the greater use of Why-Why analysis in the workplace, using our own created unique Why-Why analysis manual at fiscal 2014. Additionally in fiscal 2015 we translated this manual into Chinese, and to Chinese group companies we provided Why-Why analysis training.

*QYT: Quality hazard detection training

Occupational Health and Safety as well as Quality Assurance Initiatives

1. Safety and Quality Assurance Activities at Work Sites

We are undertaking a wide range of safety and quality assurance activities. We are also compiling databases on environmental, safety, and quality issues to be used across our business sites.

Safety Activities	Quality Assurance Activities
◦ Risk Assessment	◦ Quality Risk Assessment
◦ 5S Activity ^{*2}	◦ Quality Patrol
◦ Hiyari Hatto Activity	◦ Trend Management (Visualization)
◦ KYT Activity	◦ Campaign to Prevent the Reoccurrence of Quality Problem
◦ TPM Activity ^{*3}	◦ Quality Technology Training

*2 5S Activity: An acronym of five Japanese words phonetically starting with the letter "S".

*3 Total Productive Maintenance (TPM): Activities that maintain equipment and facilities in good working order to ensure safety and maintain productivity.

2. Conducting Safety Assessments (Risk assessment, understanding potential risk factors)

Each of our business sites performs safety reviews for new processes and facilities and whenever changes are made to existing processes and facilities. And we implements "Risk Assessments" in order to prevent business sites accidents, injuries, environmental accidents, complaints and quality issues. Risk factors in chemical reactions are analyzed primarily based on HAZOP.^{*4}

*4 HAZOP: Hazard and Operability Study. A safety evaluation methodology used at chemical plants. Potential hazards associated with chemical reactions can be comprehensively extracted for evaluation.

3. Elimination of Shortcuts and Omissions

Accidents that have occurred within the Nippon Kayaku Group in recent years have tended to result from shortcuts or omissions. As a result, the Nippon Kayaku Group is working to share safety awareness across different workplaces by distributing work flow checklists to help eliminate shortcuts or omissions, having employees issue a safety declaration to prevent shortcuts and omissions, as well as displaying this safety declaration clearly in each workplace.

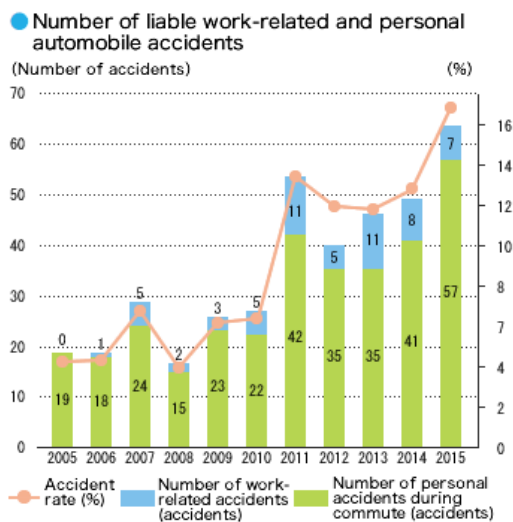
4. Traffic Safety Initiatives

Many Nippon Kayaku Group employees drive a car as part of their work duties or to commute to work. We perform safe driving reviews using a camera-equipped drive recorder^{*5}. And for new MR (Medical Representatives) we perform safe driving leading using "Kuruma-i"^{*6} which immediately sends E-mail to their superior officer when he drove dangerously, and using the driving aptitude test approved by the National Police Agency^{*7}. Our ratio of liable accidents is half of the average for the Japan Pharmaceutical Manufacturers Association. Nevertheless, in fiscal 2015 the accident rate was 16.8%, which marked a significant increase year on year and was among the worst accident rates in recent years. Therefore, we will not only continue with traffic safety reviews, but also expand driver's training for new employees, work toward reducing the number of traffic accidents.

*5 Camera-equipped drive recorder: A recorder that can analyze bad driving habits, such as sudden acceleration, sudden braking, and sudden turns using sensors for front/back and right/left acceleration, gyrocompass and GPS system.

*6 Kuruma-i: A system that uses sensors positioned throughout the vehicle to measure acceleration and local (GPS) to detect sudden acceleration, sudden braking, and sudden turns and immediately notify the driver's supervisor by email.

*7 Driving aptitude test approved by the National Police Agency: An exam that measures the aptitude of driving based on seven written questions covering 11 topics, including decision making skills, ability to prevent collisions, and mental stability test.



*Fiscal 2012 represents 10 months of data due to a change in the fiscal term.

5. Promoting Health Management

Our employees undergo regular health checkups as well as special physical examinations because chemical substances are regularly handled on the job. Employees meet with an industrial physician following their regular health checkup to receive guidance and instructions on their health management and awareness. We also manage a database of information on the hazardous properties of chemical substances and utilize this information to prevent work related illnesses.

Mental Health Initiatives

To balance improvements in operational productivity with the creation of added value, employees need to have workplaces where they can thrive and also be in good mental and physical health.

The President of Nippon Kayaku issued a Mental Health Declaration in 2005 and since then we have provided thorough guidance to managers on the subject. Mental health care requires that all employees have the correct knowledge and understanding to ensure they can prevent or detect mental health issues at an early stage. We focus the greatest efforts on mental health issue prevention. After rolling out our mental health care program, we invited a speaker from our contract EAP*8 to lead a mental health care training program mandatory for all employees to take part in at least once that was set up on four occasions – in fiscal 2005, between fiscal 2006 and 2008, between fiscal 2009 and 2011 and between fiscal 2012 and 2014. We formulated a new three-year plan in fiscal 2015 and employees are planning to take part in this training.

We have also created the Return to Work Program for employees that were forced to take a leave of absence due to a mental health issue. In this manner, workplace supervisors (the company), industrial physicians, and EAP form a trinity of measures for ensuring employees can return to work smoothly with a focus on preventing relapses.

In addition, with regard to obligations under the "Stress Check System" of the Occupational Safety and Health Act implemented on December 1, 2015, we have made preparations to establish the "Stress Check System", which is scheduled to be implemented in July 2016 for all the employees.

*8EAP is an acronym for Employee Assistance Program.

6. Deployment of AEDs

Driving aptitude test approved by the National Police Agency: A driving aptitude test that measures driving ability based on responses to seven questions covering 11 items including situational awareness, collision prevention ability, and mental stability, among others.

KAYAKU CHEMICAL (WUXI) CO., LTD. (KCW) Lectures on health check-ups at KAYAKU CHEMICAL (WUXI) Co. Ltd.

KAYAKU CHEMICAL (WUXI) CO., LTD. (KCW) is a Nippon Kayaku Group company, which was established in China in 2002 to manufacture and market synthetic resins and also researches and develops technology services. KCW, as part of "employee health month," under the broader theme of environmental and safety month, organized health check-ups for all employees. Following a similar initiative in 2014, on April 28, 2015 KCW invited a specialist physician from the medical institution that performed employee health check-ups to visit the company to explain the health check-up items used for the results of employee health check-ups. Afterwards, the physician answered questions from employees and provided health guidance. This enabled KCW to encourage employees to make improvements in their daily lives and focus on health issues as well. These efforts will be continued in the future.



Health check-up lectures led by a

Further Expanding Interactive Safety Training Initiatives at Kowa Sangyo Co., Ltd.

Kowa Sangyo mainly carries out contract manufacturing work for Nippon Kayaku's Asa Plant. Kowa Sangyo conducts interactive safety training using equipment they have fabricated to provide employees with a greater sense of the importance of safety in accordance with its policy of placing safety as a top priority. This equipment was given the name Esperanza (or hope in Spanish) because this was the same name given to the child born to a worker who was buried alive with 32 others in the 2010 Copiapó mining accident in Chile only to be rescued 69 days later miraculously along with all the missing workers. The manufacturing floor involves work that carries with it an element of danger. Therefore, Kowa Sangyo is always heightening its awareness of safety, learning from past accidents and near misses, including through safety training. As part of these efforts, Kowa Sangyo uses Esperanza to simulate actual dangers to enable its employees to experience the scariness of accidents and reaffirm the importance of working safely. At the same time, interactive safety training enables employees to learn the correct usage of tools and the basics about equipment and component names, which helps to prevent accidents before they happen and to train employees about how to respond to accidents if they do occur. All safety training equipment was created in-house. Also, the safety experience room makes use of an idle room, which was renovated, repainted and installed with unused work tables and equipment, making this learning lab completely homemade from reused equipment. Learning with these interactive safety equipment helps to reaffirm dangers on the manufacturing floor, educating not only new employees, but veteran employees, too. Currently, Kowa Sangyo has nine kinds of equipment, which are also used by other workplaces for safety training. Kowa Sangyo will continue to further enhance these offerings so as to aid the safe operations of the Nippon Kayaku Group and train employees who are well versed in safety knowledge.

Polatechno Interactive Training on Getting Caught in Machinery

Polatechno fabricated original interactive machine in November 2012 to teach about and eliminate accidents involving employees getting caught in machinery. Initially, training was provided to all employees working at the company's plants and afterwards it has been held annually for new employees and workers using nip roll machines. The training includes reenactments of past accidents involving employees getting caught as well as how to operate the photoelectric tube sensor and the emergency stop button and rope switch to prevent accidents. Participants also get to experience the feeling of getting caught in machinery (a simple pinching feeling) using the proximity sensor function.

In the past, two lost worktime accidents have occurred at Polatechno involving employees getting caught in machinery. According to fiscal 2014 statistics of the Ministry of Health, Labour and Welfare, there were 180 fatalities in the manufacturing industry, and of these 36%, or 64 fatalities, were caused by getting caught in machinery. Of the 1,057 fatalities across all industries, 14%, or 151 fatalities, were attributed to getting caught in machinery. This indicates that this type of accident is quite serious and occurs quite frequently in the manufacturing industry.

Starting in fiscal 2015, Polatechno has been implementing a greeting campaign, mutual consideration, and onsite patrol instructions based on the general manager's policy, all on the theme of "Reinforcement of Safety Awareness." Going forward, Polatechno will implement the PDCA cycle to foster a corporate culture with an even greater focus on safety, as it underpins all corporate activities.

Asa Plant Recipient of the Fiscal 2015 Fire and Disaster Management Agency Commissioner's Award for Excellent Practices in Handling Dangerous Substances

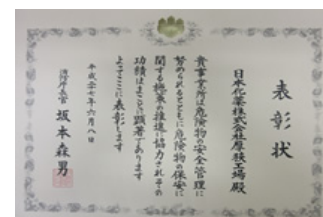
The Asa Plant was recognized with the Fire and Disaster Management Agency Commissioner's Award for Excellent Practices in Handling Dangerous Substances on June 8, 2015.

This award is presented by the Commissioner of the Fire and Disaster Management Agency to companies with an excellent track in ensuring the safety of people's lives by cooperating with government initiatives on the safety of hazardous substances and by voluntarily and proactively promoting the safe management of hazardous substances. The goal of this award is to encourage companies handling hazardous substances to establish their own safety system and help to facilitate the implementation of the fire department operations.

To achieve this goal, the Asa Plant has worked to share past accidents and create a database as part of its organized safety management, and it has in turn shared information of past accidents at Group companies and other companies in an effort to prevent similar mishaps from happening. Also, the Asa Plant conducts fire fighting training twice annually and disaster prevention training once annually to ensure that it can respond promptly in case of an emergency situation.

The Asa Plant carefully monitors the location, structure and equipment of hazardous substance facilities through Fire Prevention Week and Hazardous Materials Safety Week, as well as provides safety training to all employees and ensures safety measures related to the handling of hazardous substances. The Asa Plant was recognized with this award for its proactive commitment to safety and its clean track record of zero violations of related laws and regulations.

Takasaki Plant



Commended by the City of Takasaki for Wildfire Fire Fighting Activities

On July 28, 2015, the Takasaki Plant Self-defense Firefighters were recognized by the Mayor of Takasaki City for their contributions to the initial response to fighting a nearby wildfire.

This wildfire started on April 26, 2015 on the bank of the Ino River located close to the Takasaki Plant. A passerby reported the fire and several employees convened quickly to take the plant's fire engine to the scene of the fire, where they began to suppress the fire before the fire department arrived. Thanks to this initial response, the entire fire was contained and put out safely, keeping damage to a minimum.

The Takasaki Plant and the regional fire department covering the City of Takasaki and other areas have concluded an agreement on fire fighting cooperation for nearby fires. In addition to its fire fighting activities, this commendation also recognized the Takasaki Plant for its initiatives to build collaborative relationships with the local community.



Aiming for to Completely Eliminate Traffic Accidents Initiatives at Kayaku Safety Systems (Huzhou) Co., Ltd.

KSH is a Nippon Kayaku Group Company, which was established in 2006 in Huzhou city, China in order to manufacture automotive safety components. In 2014, KSH employees were involved in 14 traffic accidents. The growing number of employees commuting to work by car has led to this increase in traffic accidents. Even an increase in minor accidents could lead to a major traffic accident one day.

On December 2, 2014, KSH's Safety and Environment Division took the lead in creating a new program called the Traffic Safety Declaration and conducted company-wide safety training in conjunction with China's National Traffic Safety Day. The slogan of the Traffic Safety Declaration is "Never violate Article 7*9 and always drive safely in accordance with traffic laws and regulations."

KSH's Safety and Environment Department added an additional six items to this declaration based on the company's situation. These six items are never talk on the phone or smoke while driving, never turn sharply or change your route suddenly, pay attention to cars in front and behind you, drive at the appropriate speed, use turn lights well before turns, pay attention when passing other vehicles.

All employees were trained to ensure they abide by this declaration, which included reading the declaration aloud and signing their name to a poster about the declaration. Finally, the signed poster was displayed in a highly visible location at the entrance to the company to remind all employees about the importance of traffic safety on a daily basis.

KSH established a goal within its fiscal 2015 company-wide safety policy and targets to fully comply with the Traffic Safety Declaration. KSH's Safety and Environment Department helped to completely eliminate legal violations by conducting checks more than twice a month on whether employees wore their seatbelt or helmet when arriving and leaving work and whether employees were speeding when driving.

As a result, KSH employees were involved in zero traffic accidents in fiscal 2015.

*9 Article 7 violations: speeding, excessive loads, drinking under the influence, drinking while taking medicine, running a red light, driving on roads reserved for emergency vehicles, and ignoring pedestrian crossings.



Nippon Kayaku Fukuyama Co., Ltd. honored with Responsible Care Award

On May 27, 2015, the Japan Chemical Industry Association held an awards ceremony at its annual meeting, where Nippon Kayaku Fukuyama co., Ltd. was recognized with a Responsible Care Award for Effort (RC Award *10).

Nippon Kayaku Fukuyama was recognized for its fundamental pointing and calling occupational safety activities based on the theme of ensuring safety through the implementation of pointing and calling.

*10 RC Award: An award presented to individuals or groups that contribute to the promotion and enhancement of Responsible Care activities.

Environment, Health and Safety (Integrated) Review with the Labor Union

The Environment, Health and Safety Review is conducted together with the Quality Review in an integrated review of Nippon Kayaku's business sites and certain Group companies based on the annual plan. This review process also involves the labor union of Nippon Kayaku.

During the review, the progress of the environment, health and safety policy and plan of the business sites and Group companies being reviewed is checked and results of activities are identified through meetings, documents and onsite audits. The labor union is also given the opportunity to point out issues, as part of efforts to increase the level of safety and health at the company-wide level.



Health and Safety Initiatives with the Labor Union

The labor union of Nippon Kayaku every year hosts the "Level-up Seminar (Health & Safety)," inviting participants from each branch to attend to receive health and safety training co-hosted by the company.

In fiscal 2015, participants took part in outside training using interactive safety training equipment to experience actual dangers first hand. The Environmental Protection & Safety Division also held a lecture entitled, "Strengthening one's ability to take notice of things and learning safety measures from past accidents."

Furthermore, training participants were asked to identify issues related to the health and safety activities of each branch (business site) that were then used as part of a group discussion on sharing information about health and



safety and how to improve the issues faced by participants' own business sites. This process greatly enhanced awareness of health and safety in the workplace.



Responding to Accidents and Disasters

1. Fire response

Each business location is equipped with a fire truck, fire hydrant, and fire extinguisher for chemical substances in preparation for potential fire hazards. In addition to holding on-site training, employees also participate in local fire fighting competitions at which they have achieved strong results.

2. Natural disaster response

As a precaution for earthquakes and other natural disasters at each workplace, we have compiled and distribute the Employee's Handbook of Disaster (Earthquake) Prevention to each and every employee. This handbook contains instructions on emergency response when an earthquake occurs, how to make contact and confirm one's safety, and alternative methods to reach home when public transportation is unavailable.

Employee safety during a disaster is monitored by a safety reporting and communication system that uses email. As an earthquake strikes, the disaster response headquarters will send out an instruction by email to all employees. Employees can reply to the email by a simple touch of a button, which allows data to be collected. This system will be used to confirm employee safety during an earthquake of a seismic intensity of 6 or higher in Japan.

Management of Chemical Substances

With countries around the world moving to tighten the management of chemical substances, we have seen a growing importance in complying with chemical related laws both in Japan and abroad and being able to aptly respond to customer requirements for chemical substances contained in our products.

The Functional Chemicals Group established the Chemical Management Office, which collects the latest information on laws and regulations around the world, instructs related departments with their response and provides training on general chemical substance related laws. Through these efforts, the Chemical Management Office is striving to maintain and improve compliance as it relates to chemical substances.

A representative of the Chemical Management Office has been assigned to the Functional Chemicals R&D Laboratories to closely monitor product safety and compliance with legal requirements from the development stage.

In fiscal 2016, we will continue to comply with Europe's REACH*11 and CLP*12, and continue to positively promote the response to the new chemicals legislation and legal reform around the world.

*11 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): An EU regulation for registering, evaluating, approving and restricting chemical substances.

*12 Regulation on Classification, Labeling and Packaging of substances and mixtures (CLP): An EU regulation on the classification, labeling and packaging of chemical substances based on GHS.

GHS Compliance

With each country implementing GHS*13, companies are now required to provide SDS*14 compliant with local laws and regulations that are written in the local language. The Functional Chemicals Group has instituted an SDS compilation system (MSDgen) that contains a large database of bilingual documents as well as data on the laws of various countries and data on the properties and toxicity of chemicals. This system enables it to create SDS that are fully compliant with local laws and regulations. The 2013 system update complies with the US version of GHS, which complements its prior compliance with GHS in Japan, Europe and Asia.

The Functional Chemicals Group manages and uses a database of SDS and SDS history to ensure that it always provides the most up to date information on GHS compliance.

*13 GHS: Globally Harmonized System of Classification and Labeling of Chemicals

*14 SDS: Safety Data Sheet.



Sample GHS-compliant label

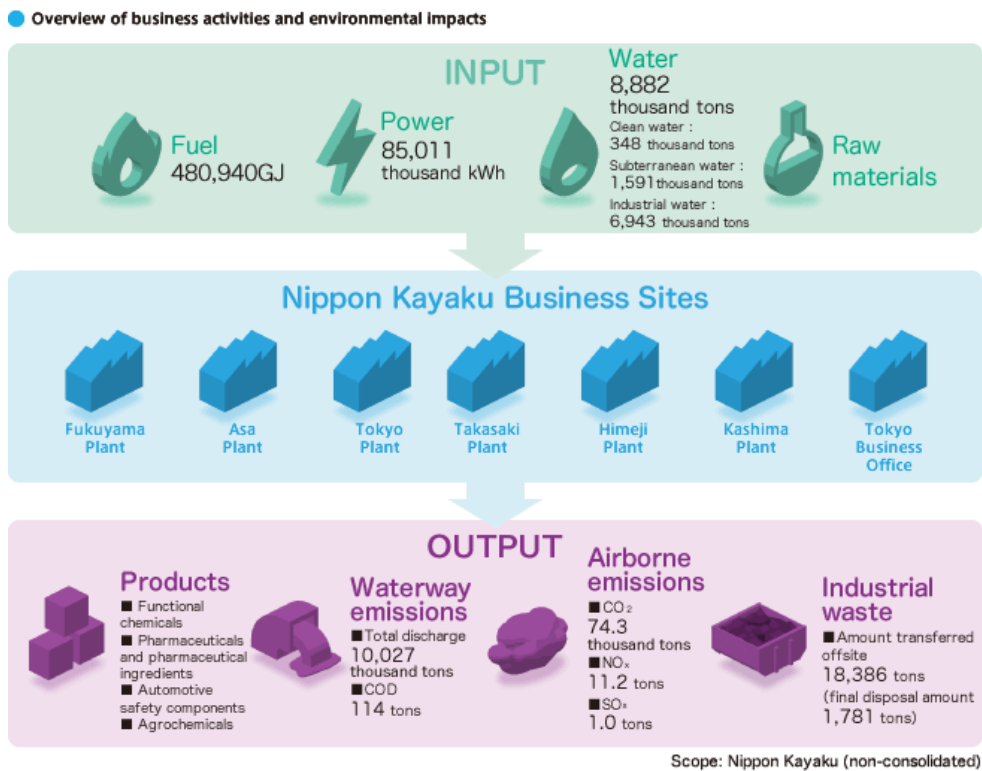
CSR



Reducing Our Environmental Impact

Energy and Material Balance

We are currently implementing initiatives that will help us achieve our mid-term environmental targets for fiscal 2020. The scope of the reporting covers Nippon Kayaku (non-consolidated).



Results of the Mid-term Corporate Plan for the Environment

Nippon Kayaku has established a mid-term corporate plan for the environment for the period running from fiscal 2011 to fiscal 2020 that consists of six items covering three areas. Fiscal 2015 was the fifth year of this plan.

● Mid-term Corporate Master Plan for the Environment (FY 2011 - FY 2020)

		Target value	Fiscal 2014 results	
Reducing Our Chemical Substance Footprint	VOC ^{*1} Emissions	Under 45 tons	77.8 tons	Increased 58% compared to fiscal 2014. This was caused by temporary increase in production at the Kashima Plant of products responsible for large amounts of VOC emissions.
	COD ^{*2} Emissions	Under 180 tons	114.2 tons	Reduced by 26.7% compared to fiscal 2014.
Prevention of Global Warming	Energy Derived CO ₂ Emission ^{*3} (Production Divisions+ Operation Divisions)	More than 3.8% reduction	69,900 tons	Reduced by 5.9% compared to fiscal 2014. This represents 15.4% reduction compared to fiscal 2005.
Reduction of Waste	Total Waste Produced	Under 30,000 tons	19,879 tons	Reduced by 8.9% compared to fiscal 2014.
	Recycling Rate	More than 70%	71.9%	Reduced by 2.5% compared to fiscal 2014. Going forward, the amount outsourced to waste processors with high recycling rate will be increased.
	Zero Emission Rate ^{*4}	Under 3%	9.0%	Reduced by 3.2% compared to fiscal 2014. Efforts will be made to reduce landfill waste produced given the large gap with the target value that still remains.

*1 VOC: Volatile Organic Compounds (VOCs). This tally includes all chemical substances emitted into the atmosphere, including those derived from reactions involving chemical substances not subject to reporting regulations.

*2 COD: Chemical Oxygen Demand. An indication of the amount of oxygen needed to oxidize a subject compound under a predetermined condition using oxidizing agents.

*3 Energy-derived CO₂ emissions: Fiscal 2005 has been set as the benchmark (82,600 tons)

*4 Zero emission rate: The amount of internal and external landfill waste produced as a percentage of total waste produced.

Results of Our Efforts to Reduce Environmental Impacts

As part of its effort to reduce environmental impacts, Nippon Kayaku focuses on preventing air, water and noise and odor pollution as well as stopping global warming and reducing waste.

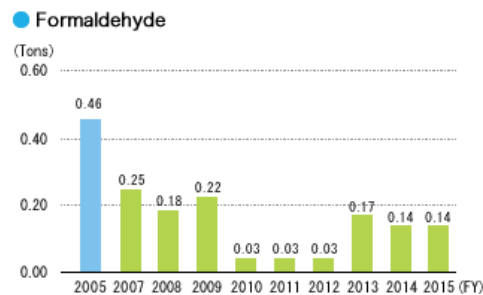
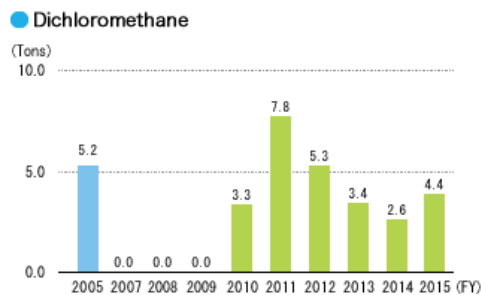
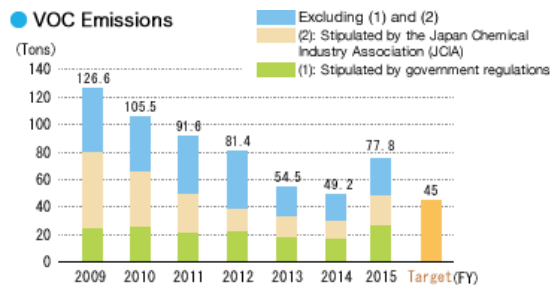
Preventing Air Pollution

To help prevent air pollution, we carefully manage substances subject to Japan's Air Pollution Control Act, hazardous substances released into the air and other air pollutants.

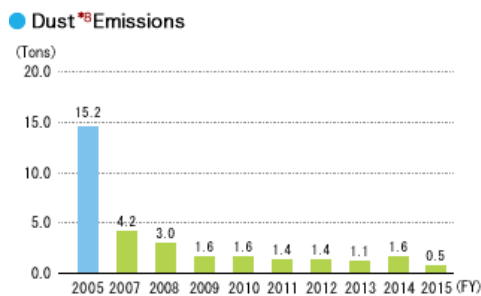
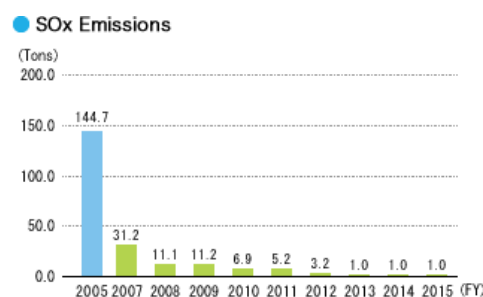
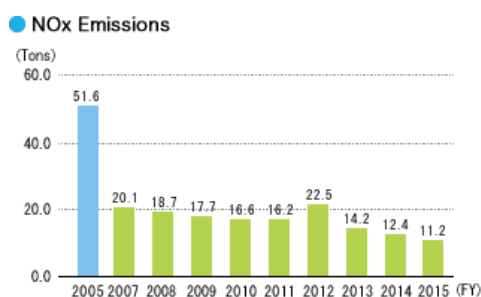
As for our VOC emissions reduction efforts, our new medium-term environmental targets established in fiscal 2011 expand the scope of data compilation to include all chemical substances discharged into the atmosphere. The new scope includes chemical substances that are produced through reactions as well as the chemical substances conventionally subject to government ordinances and the Japan Chemical Industry Association voluntary standards. The target for VOCs is to reduce emissions into the atmosphere to less than 45 tons by fiscal 2020. The Nippon Kayaku Group stands committed to making the self-initiated efforts needed to achieve this target.

Under the initiative of the Japan Chemical Industry Association, the industry is taking action to voluntarily manage and reduce emissions of 12 control substances^{*5} that are deemed to be harmful air pollutants. Of these 12 control substances, we used five substances after 1995, but stopped the use of benzene in 1995. Emissions of chloroform and ethylene oxide have been cut to zero since fiscal 2007. About dichloromethane emissions there were few times of zero since fiscal 2007, but have risen slightly since fiscal 2010 because of their minor use in products. Formaldehyde emissions continue to occur, albeit in small amounts, because of its use in products and in sterilization and fumigation. Going forward we will focus particularly on reducing the use and emissions of dichloromethane and formaldehyde through production process improvements and other means.

Air pollutants sulfur oxide (SOx)^{*6} and nitrogen oxide (NOx)^{*7} are emitted during boiler operations. To date, the Nippon Kayaku Group has gradually shifted the fuel for its boilers from Bunker C heavy oil with high sulfur content to other lower sulfur content fuels such as Bunker A, in addition to LPG and natural gas, which are sulfur free. We continued this transition in fiscal 2015 as well. As a result, since fiscal 2008, we maintain to reduce SOx emissions about, we made further reductions. The Nippon Kayaku Group will continue to make efforts. to properly maintain air pollution prevention equipment, carry out regular inspections and upkeep, and reduce overall emission of air pollutants into the atmosphere.



*5 12 control substances subject to voluntary controls: acrylonitrile, acetaldehyde, vinyl chloride monomer, chloroform, 1,2-dichloroethane, dichloromethane, tetrachloroethylene, trichloroethylene, 1,3-butadiene, benzene, formaldehyde, and ethylene oxide.



*6 SOx (sulfur oxide): SOx is emitted when fossil fuels that contain sulfur are burned. SOx reacts with water in the atmosphere to form sulfuric acid and sulfurous acid, which are causes of air pollution and acid rain.

*7 NOx (nitrogen oxide): NOx is produced when burned chemical substances react to nitrogen in the air and when fuels and chemical substances that contain nitrogen compounds such as coal are burned. Not only is it a major cause of air pollution including photochemical smog and acid rain, but NOx also has a harmful effect on the human respiratory system. In addition, NOx is also known to include the greenhouse gas dinitrogen monoxide.

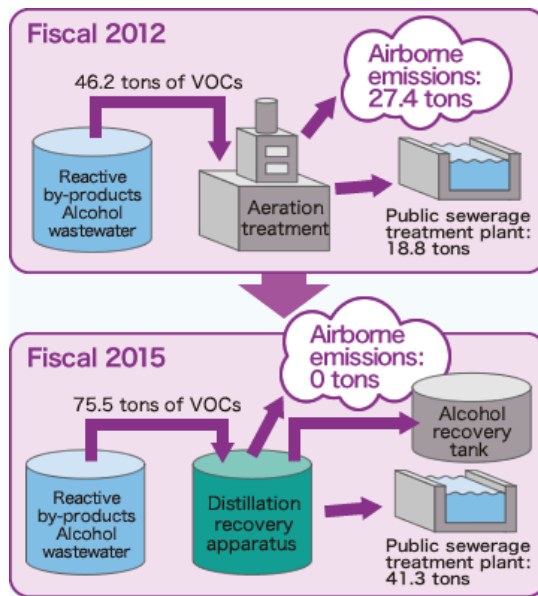
*8 Dust: Dust mainly refers to fine particulate soot found in dust smoke produced when burning fossil fuels. In addition to a major cause of air pollution, humans can contract pneumoconiosis or other harmful health conditions when breathing dust in high concentrations.

Initiatives to Reduce VOCs at the Kashima Plant

The Kashima Plant released alcohol produced in large quantities from the agrichemical manufacturing processes into the air, but in order to become an eco-friendlier plant, it decided to launch an initiative to examine ways to recover alcohol produced during the manufacturing process based on theme reducing the amount of VOCs released into the air. Specifically, existing facilities were switched for use as alcohol distillation recovery apparatuses, which involves transforming alcohol in a gaseous state into a liquid for recovery in a tank. This method greatly reduces the amount of alcohol released into the air.

In fiscal 2012 we released 27.4 tons into the atmosphere. As a result of the above-mentioned, we completely eliminated our emissions of alcohol gas into the atmosphere since fiscal 2013.

We stand firmly committed to actively helping improve the environment with the goal of reduced impacts on the environment in the future.



Preventing Water Pollution

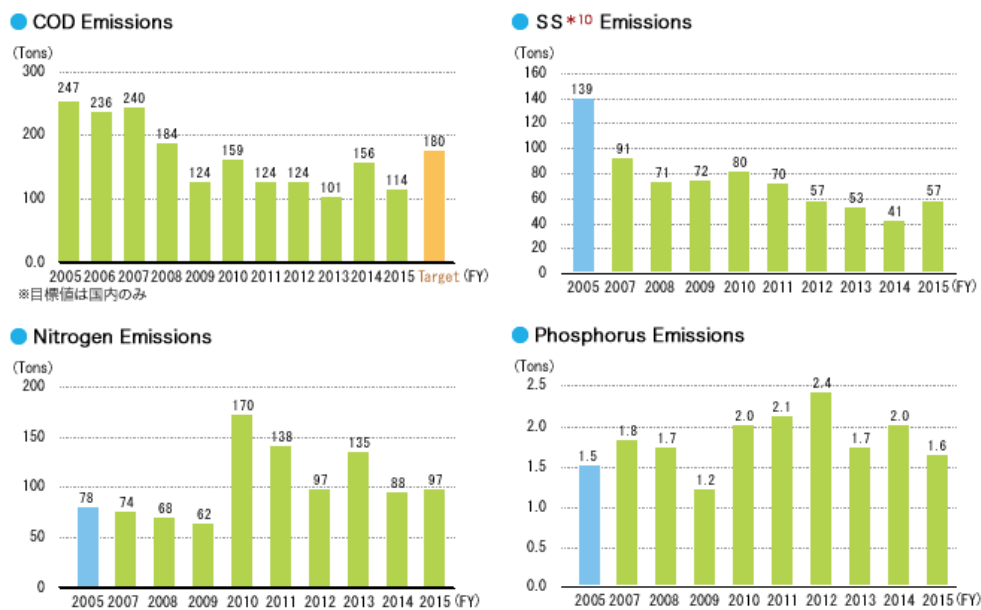
The Nippon Kayaku Group has set voluntary wastewater discharge control standards that are tougher than requirements laid out in national laws and local ordinances.

And The Nippon Kayaku Group produces color material-related products including dyes and ink jet printer ink, among others. Our Tokyo and Fukuyama plants, where color material-related products are manufactured, fully decolorize colored wastewater before it is discharged.

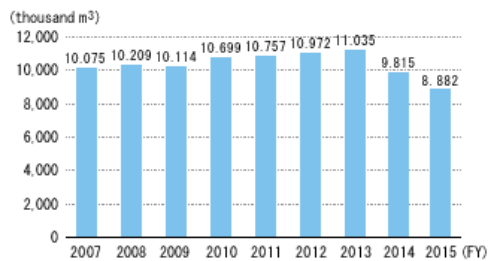
The Nippon Kayaku Group has made efforts to reduce its COD emissions by employing activated sludge treatment equipment at plants with high levels of COD emissions. In fiscal 2015, the amount was 114 tons, which was by 27% less than fiscal 2014. This was because the product mix at the Fukuyama Plant changed in fiscal 2014 to high COD load products, but since then this production had eased while wastewater impact reduction measures had taken effect.

PRTR^{*9} Initiatives

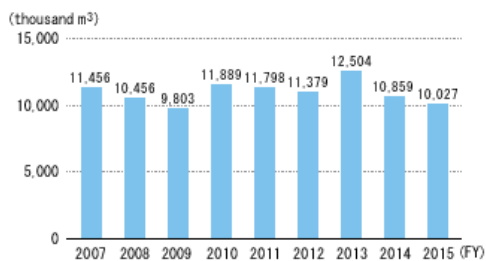
Since 1995, the Nippon Kayaku Group has participated in the Japan Chemical Industry Association led initiative to reduce compounds identified in the PRTR regulation, working to reduce its emissions of PRTR controlled compounds into the environment. In fiscal 2015, our emissions of PRTR controlled substances totaled 29.4 tons which marked about 35% increase from 21.8 tons in the previous fiscal year. This was caused by production volume at the Kashima Plant increased. Although toluene continues to represent the largest source of PRTR controlled emissions, toluene emissions totaled 16.0 tons in fiscal 2015. This was about 54% of all emissions of compounds identified in the PRTR regulation.



Water Consumption



Drainage



Emissions of PRTR Controlled Substances



*9 PRTR: Pollutant Release and Transfer Register. The PRTR regulation is designed to prevent occurrences of environmental safety incidents by encouraging businesses to improve their own chemical substance management.

*10 SS: Suspended Solids. SS is a water-quality indicator generally referring to insoluble substances of 2 mm or less in diameter suspended in water. The organic matter and metal originating in particulate-like mineral, animals-and-plants plankton and its corpse, a sewer, factory effluent, etc. are contained. The increase in SS worsens transparency, and influences underwater photosynthesis by preventing light penetration.

Initiatives in China to Reduce COD Emissions

Wuxi Advanced Kayaku Chemical Co., Ltd. (WAC) is a Nippon Kayaku Group company, which was established in 1996 in Wuxi City, China in order to manufacture synthetic dyes for paper and textiles.

At WAC since 2013 spring there has been sharp increase in the production of dyes with extremely large COD emissions, and as a result the company examined ways to modify the production method, greatly reducing COD emissions in the manufacturing process. However, WAC determined it would be necessary to expand its fundamental wastewater treatment capacity in order to continually expand business activities in the future in conjunction with the increase in production volume. As a result, WAC introduced a new biological treatment system in 2015

This new biological treatment system passes the treated wastewater through hollow-fiber membrane *11 in order to separate the activated sludge from the treated wastewater. This makes it possible to have about three times the concentration of active sludge within certain quantity of water compared to conventional biological treatment systems, which enables highly efficient biological treatment in minimal space. After completion in October 2015, the facilities were gradually switched over from the old system to the new system, and now the new system is able to treat a stable amount of water that exceeds the COD elimination ratio of the old system. Also, the capacity of this new system can be expanded simply by adding hollow-fiber membranes, allowing for expansion as production volume increases in the future.

In China, environmental regulations are expected to be further tightened in the future, so going forward WAC will make changes to its facilities in a timely manner to minimize environmental impacts and become a company with highly efficient production system that makes continual improvements where needed.

*11 Hollow-fiber membrane: A hollow-fiber that is able to filter water.

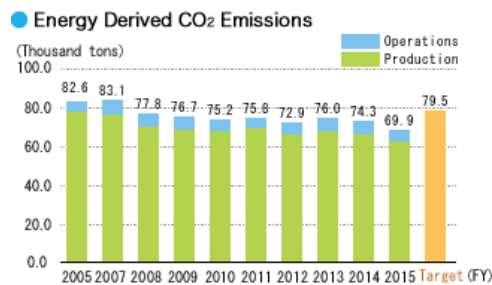


Wuxi Advanced Kayaku Chemical's wastewater treatment facility

Preventing Global Warming

Each of our business sites has implemented various energy conservation activities that have helped to reduce our total energy consumption annually. In fiscal 2013, total energy usage declined, but as the conversion coefficient for CO₂ emissions revision, CO₂ emissions were temporarily worsening, in fiscal 2015, CO₂ emissions were 69,900 tons, which was 5.9% less than fiscal 2014.

As part of its efforts to help reduce CO₂ emissions from homes, the Nippon Kayaku Group has established the program to encourage employees to conserve energy at home called "My Home is Currently Conserving Electricity", which focuses exclusively on electricity usage. In 2015, we created new version of Kayakuma the Bear with the phrase "I'm currently conserving electricity" to raise greater awareness of this campaign.



Aiming to be a Company that uses Less Energy

The Nippon Kayaku Group established the Energy Conservation & Global Warming Prevention Committee led by the president to roll out company-wide initiatives to help it achieve the provisional mid- to long-term environmental target of reducing greenhouse gas emissions 15% compared to 2005 by fiscal 2020. As part of this effort, we are working diligently to further reduce energy-derived greenhouse gas emissions.

Furthermore, the power supply problems caused by the Great East Japan Earthquake that struck on March 11, 2011 have inspired us to promote a company-wide project with the goal of becoming a company that uses less energy and can withstand power supply instability. &Global Warming Prevention Committee.

Themes of Initiatives

1. Change power systems to build a stronger foundation for energy conservation

The Takasaki Plant installed and began operating a CGS* in June 2013 that can produce about one-third of its electricity needs from Tokyo Electric Power Company.

We completed the review process for emergency back-up generators at our other plants.

In addition, we changed electricity suppliers at certain business sites, excluding plants, to achieve a stable power supply unaffected by the operating situation of Japan's nuclear power plants.

* CGS: Co-generation system that produces electricity using gas as well as collects and reuses resulting heat emissions

2. Promote existing energy conservation and global warming prevention theme

We successfully reduced the total energy consumption by 3.4% compared to the previous year in fiscal 2015 by pushing forward our objectives of energy saving.

3. Create energy conservation master plan to achieve ideal vision for plants

We are preparing mater plans to reduce energy usage with an eye on the future vision for our plants. Going forward, we will periodically revise these plans as part of our ongoing efforts to reduce our specific energy consumption and greenhouse gas emissions.

4. Formulate new energy conservation themes based on a statistical analysis of energy usage at our plants

We performed a statistical analysis on plants that have completed the collection of necessary data and verified the main factors behind their use of energy in order to begin a review into ways that we can reduce this energy usage. As for plants still collecting this data, we will perform a statistical analysis as soon as it becomes available and work to narrow the scope of this theme.

5. Devise evaluation method for energy usage at the time of research and development when developing new environmentally friendly products

We have created a system during the initial research and development stage where researchers perform energy usage evaluations on the manufacturing process under development. Although this system is still in its infancy, the fact that researchers are performing these evaluations has raised their awareness of energy conservation, which is expected to have positive effects on the development of energy efficient production processes. The Nippon Kayaku Group has investigated and summarized the energy-saving activities of each group company from fiscal 2011.

The Nippon Kayaku Group has investigated and summarized the energy-saving activities of each group company from fiscal 2011.

[FY2015 Energy saving activity summary sheet of Nippon Kayaku Group](#) 

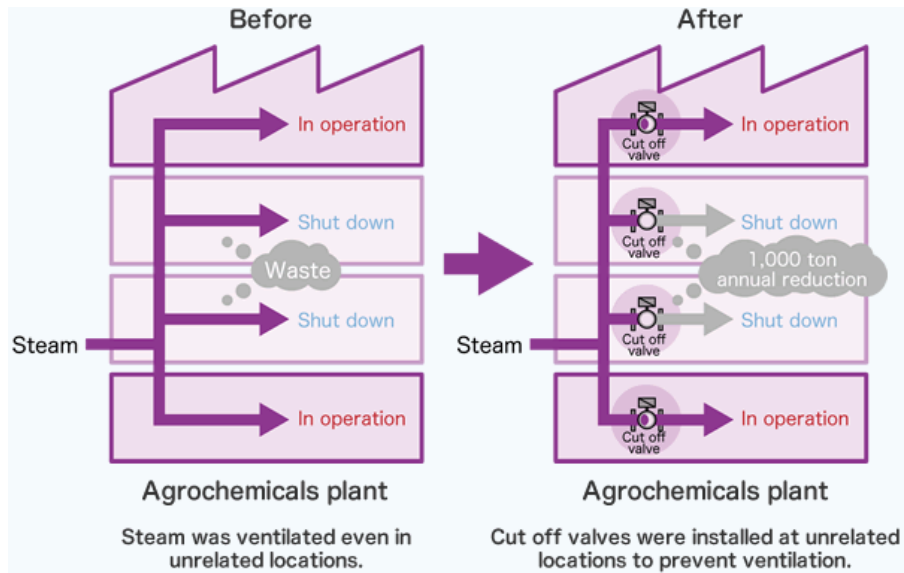
Initiatives to Reduce Steam Usage at the Kashima Plant

The Kashima Plant is a synthesis plant that mainly produces agrochemicals using synthesis technologies. Therefore, the plant requires a huge amount of energy to power these processes. However, Nippon Kayaku is working, through its CSR activities, to aim to reduce energy consumption, and for this reason the Kashima Plant was asked to find ways to reduce its energy consumption.

As one solution, starting in 2012 the plant began working on ways to reduce its use of steam, which accounts for a large amount of its energy sources. The plant focused on the fact that the steam pipeline traversing the site and plant ventilated steam regardless if the plant was operating or shut down (waste), so it installed several cut off valves. By opening and closing these valves in line with operational status, the plant was able to reduce its use of steam.

As a result, the Kashima Plant successfully reduced its annual steam usage by 1,000 tons, where before it had used between 5,000 and 6,000 tons each year.

Going forward, the Kashima Plant will continue to implement CSR activities to fulfill its environmental responsibilities as a plant that uses less energy.



Introduction of a Photovoltaic System at the Himeji Plant

The electricity situation for the Himeji Plant has changed a great deal since before the Great East Japan Earthquake as follows.

1. Electricity supply shortages are forecast every year for the Kansai Electric Power Company service area during the summer months because of lost capacity from the shutdown of nuclear power plants, and so customers have been asked to reduce their electricity usage during peak times

2. The minimum necessary electricity needed to contact customers and other related stakeholders during a major disaster is required as part of its BCP measures

The Himeji Plant began operating a power generation system combining a photovoltaic system and lithium ion batteries in April 2014 to satisfy the following three conditions.

1. Use of a system that can reduce the plant's electricity usage during time of peak demand in non-emergency situations

2. A system that can operate even when external lifelines are cut off

3. A system that can ensure the minimum operations of indirect and sales departments in case of a blackout from a major disaster

The capacity of each component of the system is as follows.

Photovoltaic system: 54kW generating capacity

Lithium ion batteries: Output of 30kVa

After putting the system into operation, the Himeji Plant has been able to reduce its use of electricity by up to 50kW during peak demand times in the summer. Additionally, the Himeji Plant was forced to initiate an emergency shutdown due to a nearby accident in December 2014. The photovoltaic system and lithium ion batteries operated as normal and supported the operations of indirect and sales departments. In the future, the Himeji Plant will increase the number of solar panels and take further steps for its BCP and energy saving activities.

Rolling Out Eco-friendly Sales Vehicles

Information on efficacy and safety is essential to ensuring that patients use our pharmaceutical products correctly. Nippon Kayaku stations medical representatives (MR) throughout Japan in order to gather and provide information on our proprietary pharmaceuticals by visiting medical institutions in person. All of the 332 company-owned sales vehicles used by these MR in their daily visits were recently switched over to eco-friendly hybrid vehicles, with the exception of colder weather areas requiring all-wheel drive.

Tokyo Business Center Recipient of Top Prize in Electricity Usage Rationalization

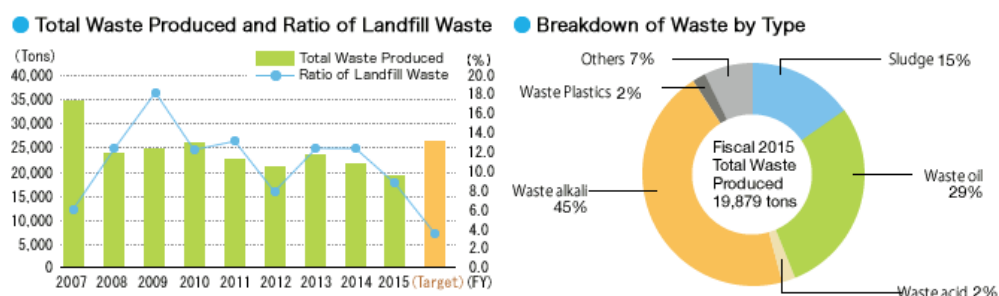
Nippon Kayaku's Tokyo Business Site has three electricity receiving contracts. All three of these areas (Tokyo Business Center and two sites of the Pharmaceutical Research Laboratories) received a Top Prize as Excellent Energy Managing Company on March 6, 2015 from the Kanto District Electricity Usage Rationalization Committee. This prize recognizes companies for the promotion of the effective utilization of electricity, improving its impact ratio, and appropriately maintaining its electrical facilities.



The Tokyo Business Site has introduced LED lighting and high efficiency air conditioning systems, and promoted the greater visualization of electricity usage. Going forward, the Tokyo Business Site will continue to work on rationalizing its electricity usage and maintaining its electrical facilities appropriately.

Waste Reduction

In fiscal 2015, the Nippon Kayaku Group produced 19,879 tons of waste, which represents 8.9% reduce compared to fiscal 2014. Landfill waste fiscal 2015 amounted to 1,781 tons, and the Zero Emissions rate of 9%, which represents 3.2% reduce compared to fiscal 2014. As a result, we are still far behind the target for fiscal 2020 of 3.0%, and so going forward we will continue to implement activities that reduce landfill waste produced.



Noise and odor Prevention

We conduct our business with a conscious effort toward minimizing noise and odor pollution in the areas surrounding our factories. We regularly measure noise levels around our factories, making every effort to be a positive members of the local community or odor-monitor-system. As such, any feedback or requests that we receive from local residents at company-sponsored events such as community round-tables are treated with the utmost priority. We also conduct regular work environment measurements in the factory to protect our employees from excessive noise and other hazardous chemicals.

Environmental Accounting

Nippon Kayaku has tracked and shared all cost data associated with its environmental protection initiatives since fiscal 2000. Also, from fiscal 2003, we began calculating the returns from our environmental protection initiatives. Calculation of environmental costs and returns are made according to Environmental Accounting Guidelines (2005 Version) published by the Ministry of the Environment of Japan, and Environmental Accounting Guidelines for Chemical Companies published by the Japan Chemical Industry Association.

Environmental Protection Costs (Fiscal 2015)

(Millions of yen)

Category		Investment	Total	Main Activities	
Cost Incurred in the Workplace	Pollution Prevention Cost	Air Pollution Prevention	47.8	121.2	Installed exhaust gas treatment system, installed gas absorption system, and replaced pretreatment tower
		Water Pollution Prevention	70.1	227.2	Replaced leakage containment barrier and wastewater pit, improved oil separation tank, and replaced wastewater pump
		Underground seepage prevention	23.8	19.3	Brought drainage piping above ground, brought the walls of the drain pit, dirt floor lining
		Noise and Vibration Prevention	0.5	0.5	Installed silencer on isolation tower
		Other		256.6	Disposal costs of facilities and pollution charges
	Global Environment Cost	Global Warming Prevention and Energy Conservation	85.0	3.0	Upgraded blowers/pumps, heat insulation coating for roof, switched mercury bulbs to LED
Resource Recycling Cost	Waste treatment	8.5	455.8	In-house processing costs and processing outsourcing costs	
Up- / Down-Stream Cost	Container Recycling Outsourcing	-	0.4	Outsourcing costs for repackaging products and cleaned and recycled product containers	
	Sewerage Processing Cost	-	100.7	Sewerage treatment costs Tank dredging costs	
Management Activity Cost	System Maintenance and Operation	-	117.6	Internal auditor development cost and ISO14001 renewal costs	
	Environmental Stress Monitoring	-	45.8	Analysis costs and outsourcing costs	
	Information Disclosure	-	8.8	Outsourcing costs for preparing information disclosure documents on the environment	
	Education, Training and Other	-	55.0	Outside lectures, workplace training, etc.	
	Greening	0.3	265.9	Added plants and improved some greenery along the roadway Outsourcing costs	
R&D Cost			45.0	Environmentally friendly R&D costs and wastewater treatment technology development costs	
Social Activity Cost		-	9.0	Plant tours, community event sponsorship, responsible care, ICCA special committee, LRI research meeting costs	
Environmental Damage Cost		-	0.0		
Total		236.0	1,731.8		

● Return from Environmental Protection Initiatives

(Millions of yen)

Sources of Return		Cost Reduction Return	Main Activities	
Workplace	Pollution Prevention Return	Air Pollution Prevention	0.0	Installed new type of boiler, replaced activated carbon pretreatment tower, decommissioned incineration furnace, and recovered alcohol
		Water Pollution Prevention	0.0	Developed embankment and wastewater pit, reduced the amount of color pollution, and relocated underground pipes to above ground
		Pollution Load Levy Reduction	0.2	
		Noise and Vibration Prevention	0.0	
	Global Environment Return	Global Warming Prevention and Energy Conservation	88.6	Reduced cost by using gas cogeneration system, cut off steam system, and introduced energy-efficient equipment
	Resource recycling return	Reduction of Waste	8.7	Recovered valuables from waste, and recycled waste oil as auxiliary fuel
		Sale of Recycled Resources	21.7	Collected valuables, metals, sold paper products outside the group, and sold plastics outside the group
		Other	0.0	Made changes to in-house recycling and the waste processing provider
Up- / Down-Stream	Container Recycling	0.0	Reused plastic drums	
Others		0.0	Implemented greening activities	
Total		119.3		

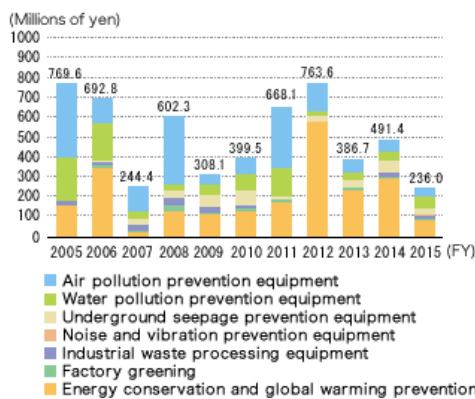
- Scope: Nippon Kayaku (non-consolidated)
- Capital expenditure: Compilation of capital appropriated for orders in April 2015 to March 2016
- Management cost: Any cost increase resulting from change in fuel type or change in waste processing method that are deemed appropriate from an environmental perspective are recorded under this category each year for a period of five years from the date the change is first administered.
- From a financial accounting standpoint, earnings realized from environmental protection initiatives are recorded in the fiscal year in which such earnings are realized.
- Earnings such as expense reduction and environmental impact reduction that are not considered from a financial accounting standpoint are reported for five years from the date it is first realized.

■ Investments Related to the Environment, Health and Safety

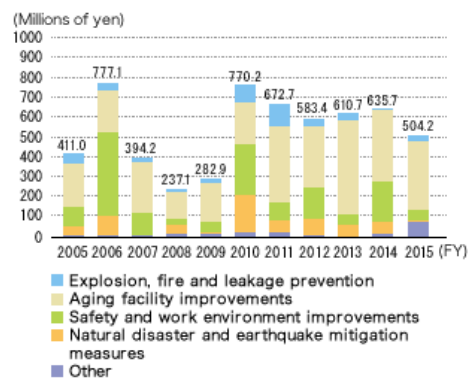
The Nippon Kayaku Group makes well planned and continual investments in environment, safety and health related projects. In fiscal 2015, investments related to the environment totaled 236 million yen, which was approximately half the figure for fiscal 2014. This was caused by investments in energy conservation and global warming prevention running their course.

Investments related to health and safety totaled 504.2 million yen in fiscal 2015, which is down 20% compared to fiscal 2014 investments in measures to address aging facilities accounted for 71% of the total.

● Environment Related Capital Investments



● Safety and Health Related Investments



FY2015 Energy saving activity summary sheet of Nippon Kayaku Group

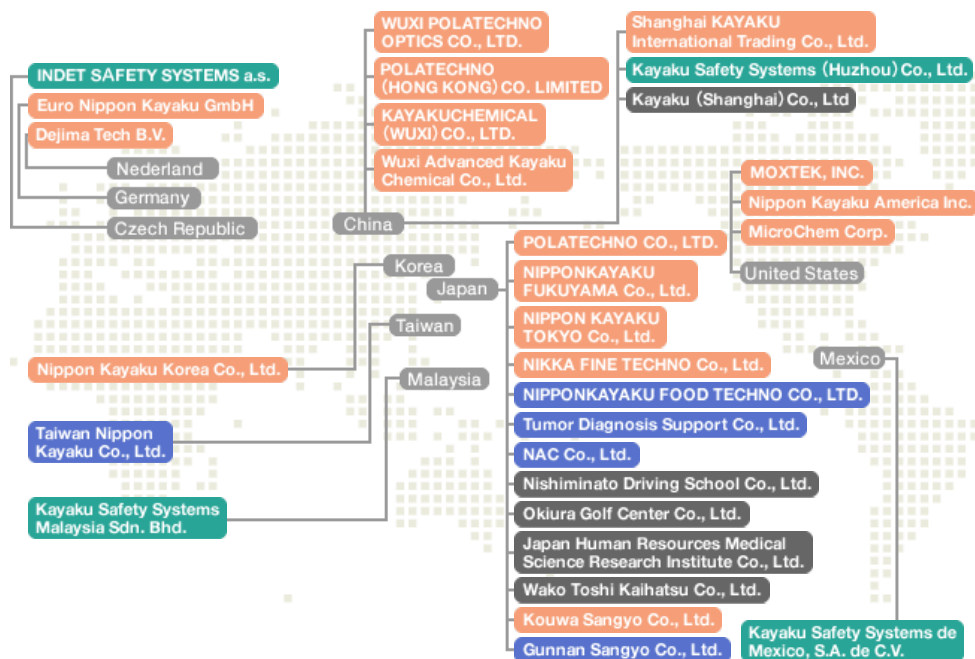
— : Non-applicable * : High-load machinery: refrigerators/freezers, blowers, air compressors, steam boilers

Business site/Company name	"Green curtains" (bitter gourd plants)	Adjustments to work styles	Management of thermostat settings	electricity/water saving and conservation awareness	Reduction of fluorescent lighting ; Switch to LED lighting.	Controlled operation of high - load machinery*	Limits on refrigerator use, etc.	Heat barrier film/paint, water disperement	Solar panels
Head Office, NIPPON KAYAKU CO., LTD.	—	—	●	●	●	—	●	—	—
Fukuyama Plant/ NIPPONKAYAKU FUKUYAMA CO., LTD.	●	●	●	●	●	●	●	●	
Asa Plant	●	—	●	●	●	●	●	●	●
Tokyo Plant/ NIPPON KAYAKU TOKYO CO., LTD.	●	—	●	●	●	●	●	●	
Takasaki Plant	●	—	●	●	●	●		●	
Himeji Plant	●	●	●	●	●	●		●	●
Kashima Plant	●	—	●	●	●	●		●	
Tokyo business CENTER/ Tokyo business district	●	—	●	●	●	●	●	●	
POLATECHNO CO., LTD.		—	●	●	●	●			
MOXTEC, INC.	—	—	●		●	—		●	
WUXI POLATECHNO OPTICS CO., LTD.	—	—	●	●	●	—			
Dejima Tech B.V.	—	—	●	●	●	●			
POLATECHNO (HONG KONG) CO., LIMITED	—	—	●	●		—		●	—
NIKKA FINE TECHNO CO., LTD.	—	—	●	●		—			—
Nippon Kayaku Korea Co., Ltd.	—	—	●	●		—			—
NIPPON KAYAKU AMERICA, INC.	—	—	●	●		—		●	—
Euro Nippon Kayaku GmbH	—	—	●	●		—			—
KAYAKU CHEMICAL (WUXI) CO., LTD.	—	—	●	●		●			
MicroChem Corp.	—	—	●	●		●			
Wuxi Advanced Kayaku Chemical Co., Ltd.	—	●		●	●	●		●	
Shanghai KAYAKU International Trading Co., Ltd.	—	—	●	●		—			—
NIPPON KAYAKU FOOD TECHNO CO., LTD.		—	●	●	●	—		●	
Tumor Diagnosis Support Co., Ltd.	●	—		●	●	—		●	
NAC Co., Ltd.		—	●	●	●	—			
Taiwan Nippon Kayaku Co., Ltd.	—	—	●			—			—
INDET SAFETY SYSTEMS a.s.	—	—	●	●	●				
Kayaku Safety Systems (Huzhou) Co., Ltd.	—	—	●	●		—		●	
Kayaku Safety Systems de Mexico, S.A. de C.V.	—		●	●	●	—		●	
Kayaku Safety Systems Malaysia Sdn.Bhd.	—	—	●	●	●	—	—	●	—
Nishiminato Driving School Corporation		—	●	●	●	—		●	
Kayaky (Shanghai) Co., Ltd.	—	—	●	●		—			—
Wako Toshi Kaihatsu Co., Ltd.	—	—	●	●	●	—	—	—	—
JHMS Co., Ltd	—	—			●	—			
Okiura Golf Center Co., Ltd.	●	—	●	●	●	—		●	
Kouwa Sangyo Co., Ltd.	●	—	●	●	●	—	●	●	
Gunnan Sangyo Co., Ltd.	●	—	●	●	●	—	—	●	
Head Office, KAYAKU AKZO CORPORATION	—	—	●	●	●	—			—
Asa Plant, KAYAKU AKZO CORPORATION		—	●	●	●	—			
Head Office, Kayaku Japan Co., Ltd.	—	—	●	●	●	—			—
Asa Plant, Kayaku Japan Co., Ltd	●	—	●	●	●	●	●	●	
Sanko Kagaku Kogyo Co., Ltd.	●	—	●	●	●	●	●	●	



The Nippon Kayaku Group's CSR Commitment

The Nippon Kayaku Group has business operations in nine countries around the world, comprising 17 subsidiaries in Japan and 19 subsidiaries overseas. This section presents the unified CSR commitment of 30 consolidated group companies.



Japan Functional Chemicals Group

Representative Director & President Hiromi Morita, POLATECHNO CO., LTD

POLATECHNO Co., Ltd. operates a line of businesses based on the key words "controlling light." The products we make using this technology focus on the concepts of energy efficiency and eco friendliness from the manufacturing stage. These products also make the lives of the customers who use them more convenient and comfortable. As a company that controls light, we will continue to supply a lineup of products that meet the needs of society in terms of energy efficiency and eco friendliness, while also contributing to society.



Japan Functional Chemicals Group

Representative Director & President Kunio Ujita, NIPPONKAYAKU FUKUYAMA Co., Ltd.

We will promote the environment, safety, quality and compliance through our production activities, while also contributing to the development of local communities. As part of our initiatives to support regional revitalization, we provide access to our sports facilities (baseball field, soccer field, and tennis court), support the summer festival and rose festival held in Fukuyama City, and get involved in fire prevention, disaster preparedness and occupational health and safety activities in



the community for everyone's comfort and peace of mind. We have 99 years of history behind us and we are working hard to co-exist with society by promoting CSR activities that expand even beyond our business operations in an effort to have more people recognize our value as a company now and in the future.

Japan Functional Chemicals Group

Representative Director & President Akira Saino, NIPPON KAYAKU TOKYO Co., Ltd.

At Nippon Kayaku Tokyo, we use 3C&SQE as a keyword in our approach to corporate management. This acronym stands for compliance, community, cost savings, safety, quality and ecology. With this in mind, we contribute to society through the production of dyes for ink jet printers.

We engage the local community through the Satsuki Festival (May), rice cake-making event (December), plant tours, and internships. As a plant located in a densely populated urban area, our volunteer firefighting activities help protect the plant and also form part of disaster assistance agreements we have signed with local community associations. We also have AED onsite for the benefit of workers and the surrounding community.



Japan Functional Chemicals Group • Safety Systems Group

Representative Director & President Shinya Fukuoka, NIKKA FINE TECHNO Co., Ltd.

NIKKA FINE TECHNO is the only Nippon Kayaku Group company in Japan that serves as a trading company. Our core business focuses on the domains of Nippon Kayaku and its group companies, and leveraging our broad product lines and technical support capabilities, our employees carry out business activities fully compliant with relevant laws and fully aware of the company's code of conduct. We will realize the KAYAKU spirit and achieve sustainable growth by carrying out CSR management that fulfills the expectations and trust of all stakeholders.



Japan Pharmaceuticals Group

Representative Director & President Chitoshi Mochizuki, NIPPONKAYAKU FOOD TECHNO CO., LTD.

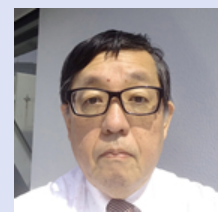
NIPPONKAYAKU FOOD TECHNO CO., LTD. manufactures and sells preservatives for food quality and other products. As part of our CSR-centered management, we aim to contribute to society through the provision of highly valuable services and excellent products that emphasize food safety and food and health. As a member of the Nippon Kayaku Group and to realize KAYAKU spirit, each and every employee abides by the Nippon Kayaku Group Charter of Conduct and Code of Conduct, following an esteemed set of ethical values with safe operations, compliance and environmental consciousness receiving top priority. With this stance, we are working to develop new fields in the food industry and also live up to the trust and expectations of our customers.



Japan Pharmaceuticals Business

Representative Director & President Koichi Ono, Tumor Diagnosis Support Co., Ltd.

The TD in TD Support stands for tumor diagnosis. We support the diagnosis of pathological tissue found in mammary glands. Today, breast cancer has the highest prevalence rate of any cancer in females. However, breast cancer is believed to be an extremely difficult type of cancer to diagnose accurately with pathological tissue. Without the right diagnosis, a patient will not be able to receive the most effective treatment. As part of the Nippon Kayaku Group's commitment to CSR management, TD Support is working day in and day out to contribute to an environment where breast cancer patients can receive treatment with the best possible outcome.



Japan Pharmaceuticals Business

Representative Director & President Mineaki Okada, NAC Co.,Ltd.

NAC Co., Ltd. is helping to establish chemotherapy methods and develop new compounds and new preparations through the provision of high quality data by means of its experience as a contract provider in biological concentration measurement testing and standard quality testing for pharmaceuticals. Also, by supplying superior quality pathological tissue samples, we are contributing to the accurate diagnosis of breast cancer. At the same time, we are striving to contribute to society through tax payments and providing seniors with opportunities as well as gaining the trust and reliability of the local community in our region through safety measures, greenery and environmental protection within the Nippon Kayaku Toyo Business District.



Japan Other Businesses

Representative Director & President Shigeyoshi Nose, Nishiminato Driving School Co.,Ltd.

Nishiminato Driving School is celebrating its 30th anniversary this year, and our greatest emphasis is to help train safe and considerate drivers who will contribute to automotive society. We also host outreach programs at local elementary and high schools on traffic safety, and also organize presentations on traffic safety for seniors and companies. We actively

fulfill our role as a hub for community transportation safety education. Going forward, we will strive to become a positive company that continually contributes to society as a comprehensive base of traffic safety learning that has earned support and empathy from the community.



Japan Other Businesses

Representative Director & President Ujita Kunio, Okiura Golf Center Co., Ltd.

Okiura Golf Center is a driving range that first opened 30 years ago in order to make full use of idle land. We have 72 positions to hit from as well as a putter, approach and bunker practice area and restaurant. Our customers span from children to seniors and they visit us to enjoy a golf practice experience. We are the only sports related business within the Nippon Kayaku Group and we hope to reach out to the local community through golf and practice CSR management by planting natural grass and trees and carrying out eco friendly management practices.



Japan Other Businesses

Representative Director & President Naoki Shiota, JHMS Co., Ltd.

Japan Human Resources Medical Science Research Institute Co., Ltd. has a mission to contribute to society as a company providing comprehensive business support solutions to the healthcare and other fields. Our business lines span a wide range of pharmaceutical support businesses for medical devices, including video productions, human resources development, training, worker dispatch, worker recruiting, and medical statistics. We also abide by related laws and regulations and we hope to continually meet the needs of our customers, despite our small scale operations.



Japan Other Businesses

Representative Director & President Tooru Nakata, Wako Toshi Kaihatsu Co., Ltd.

Wako Toshi Kaihatsu engages in the real estate lease business. We own land and a six-story building located in front of Wakoshi Station in Saitama Prefecture, which is leased to retailer Itoyokado's Wako store. We also lease two company housing buildings and one employee dormitory to Nippon Kayaku as well as the building used for Asunaro House, a facility for supporting families of children with pediatric cancer, intractable diseases or who require bone marrow transplants and are being treated at specialist institutions. Our facilities, including Asunaro House, are used by a large number of people, and this is why we strive to continually update and upgrade each to ensure user safety and comfort.



Japan Functional Chemicals Group

Representative Director & President Kazuki Uchida, Kouwa Sangyo Co., Ltd.

Kouwa Sangyo mainly carries out manufacturing work at the Asa Plant. Our important health and safety initiatives include providing opportunities for employees to experience dangers and threats to their safety firsthand using apparatuses. We also offer emergency first-aid and AED training as well as support the local volunteer firefighting brigade to instill employees with the knowledge and techniques needed to quickly respond in an emergency. The Wasshoi! Kayaku Festival co-sponsored with the Asa Plant every November has become an integral event for the local community. Moving forward, we will aim to contribute to the community through the corporate activities of each and every employee.



Japan Pharmaceuticals Business

Representative Director & President Katuya Harada, Gunnan Sangyo Co., Ltd.

Gunnan Sangyo is responsible for the security of the Takasaki Plant, Nippon Kayaku's only plant making pharmaceuticals, building cleaning, landscaping and greenery, as well as property management for Hisho, which is a training center used to develop the human resources of the Nippon Kayaku Group. We are working to carry out CSR activities by providing a more comfortable environment for local residents and the people that work at Takasaki Plant and the training center.



United States Functional Chemicals Group

CEO & President Shigeyuki Kawamura, MOXTEK, Inc.

Moxtek's CSR activities are closely rooted in the local community. These include our involvement in a homeless assistance program, support for the LEGO Robotics Tournaments in support of area universities, and our sponsorship of extracurricular activities at the elementary, junior high and high school levels. We are working hard to fulfill our commitment to be a company closely rooted in the local community by actively supporting the learning of youth and extracurricular activities in particular.



United States Functional Chemicals Group • Safety Systems Group
Representative Director & President Go Mizutani, NIPPON KAYAKU AMERICA, INC.

Nippon Kayaku America sells and promotes functional chemical products and automotive safety components to customers in North America and also provides technical support. We are located in California, which has some of the most rigorous environmental regulations and worker protection measures of any state in the United States. We comply fully with these rigorous laws and market chemical products that are safe and eco friendly. We also promote products that contribute to the environment and energy efficiency and constantly work to propose even safer automotive safety components to customers. Moving forward, we will continue to proactively engage in CSR activities with the goal of practicing KAYAKU spirit to its fullest.



United States Functional Chemicals Group
President & CEO Jeremiah J. Cole Jr., MicroChem Corp.

MicroChem is committed to its corporate responsibilities for the welfare of our employees and to creating economic value for the community, environment, and stakeholders. We are dedicated to helping our customers succeed through our innovative products and technologies. In addition, we ensure that our business success is in line with MicroChem's high ethical principles and societal expectations.



China Functional Chemicals Group
General Manager Teruhisa Inoue, Wuxi Polatechno Optics Co., Ltd

Kayaku Chemical (Wuxi) was established in 2003 in Wuxi, Jiangsu Province as a plant responsible for the post processes of POLATECHNO CO., LTD. Until now, we have promoted CSR activities through our chip processing business for automotive polarizing films and LCD projector components, but we recognize that it has become more important than ever to carry out CSR closely rooted in the community, including environmental improvement and social contributions. This fiscal year we are working to enhance our benefits programs in order to create an environment where employees can work safely with peace of mind. Ultimately, our goal is to become a company that can fulfill its responsibilities to all stakeholders.



China Functional Chemicals Group
General Manager Teruo Uchida, POLATECHNO (HONG KONG) CO., LIMITED

POLATECHNO (HONG KONG) is an important sales company that accounts for more than 70% of the POLATECHNO Group's sales. Our direct customers include Chinese LCD manufacturers and Japanese project manufacturers, but our end products are widely used around the world in final products for automobile, LCD projectors, electricity and water meters, medical devices, and home electronics. These products include products indispensable to our daily lives and many more are associated with energy efficiency, safety and health. We are committed to contributing to society, albeit indirectly, through the sales and marketing activities for our products.



China Functional Chemicals Group
General Manager Kazuyuki Murata, KAYAKU CHEMICAL (WUXI) CO., LTD.

China is faced with many environmental issues and other problems associated with its rapid economic growth, which has heightened the challenging nature of the business environment here. CSR management has become more important in terms of continually growing our business in this environment. We find it extremely important for each and every one of our employees to take action based on our corporate principles and behavioral standards in order to practice CSR management for the realization of KAYAKU spirit. We will continue to contribute to society by continually supplying products of the highest quality, in the wider sense, demanded by customers, through actions based on individual ethical values, instead of what others are doing, while respecting the local culture, history and business practices.



China Functional Chemicals Group
General Manager Tadayuki Kiyoyanagi, Wuxi Advanced Kayaku Chemical Co., Ltd.

China's President Xi Jinping has called for a shift from the country's focus on GDP to setting and achieving indicators for worker's income and environmental protection. As a result, China's environmental regulations are becoming more rigorous and thoroughly implemented, which has caused issues in the raw materials supply chain of certain chemicals companies, such as operating restrictions or forced shutdowns for raw materials manufacturers.

Wuxi Advanced Kayaku Chemical has introduced a new biological effluent treatment system this fiscal year as part of its further response to tighter regulation. We are also strengthening our relationships with raw materials manufacturers to ensure the stable supply of our products, which is considered an important CSR issue.



China Functional Chemicals Group

General Manager Hiroshi Shichijo, Shanghai KAYAKU International Trading Co., Ltd.

Shanghai KAYAKU International Trading (SKT) sells dyes, ink for industrial ink jet printers and heat-sensitive developing agents to the China and ASEAN markets. Environmental and energy conservation issues in these regions will only grow importance moving forward. In particular, environmental consideration and energy efficiency are very important issues facing customers who dye textiles. We are actively rolling out dyes that take about half the normal time to complete, which contributes to our customers' production efficiency, energy conservation and reduction in wastewater.



China Safety Systems Group

General Manager Shigeyuki Kawamura, Kayaku Safety Systems (Huzhou) Co., Ltd.

Kayaku Safety Systems (Huzhou) Co., Ltd. has created a corporate vision focused on the five key word phrase of "safety number one, commitment to quality, technological improvement, employee development, and market-focused" in an effort to realize KAYAKU spirit. We have a TS-16949 based system in place for stable quality and enhancing customer satisfaction, while in terms of safety and the environment, we have advance our efforts based on ISO 14001 and OHSAS 18001.

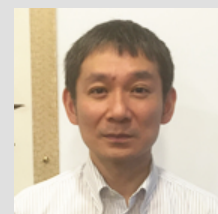
In addition, we focus on training in order to heighten employee awareness and input in our CSR-centered management. We offer training in Japan as well as training and lectures led by outside institutions and employees visiting from Nippon Kayaku, which have delivered positive results to date. We will continue to contribute to the improved safety of automotive society and benefit society, while ensuring all employees keep KAYAKU spirit close at heart.



China Other Businesses

General Manager Shigehide Kagaya, Kayaku (Shanghai) Co., Ltd

Kayaku (Shanghai) Co., Ltd. implements activities to mitigate management risks of Nippon Kayaku Group companies in China. We conduct regular compliance training so that employees of Kayaku (Shanghai) and other Group companies in China can carry out their work duties with a correct sense of compliance. Also, we strive to provide correct information and establish appropriate corporate management practices so that financial or legal improprieties never occur at Kayaku (Shanghai) and other Group companies. Kayaku (Shanghai) promises that it will provide employees with a sound workplace environment where they can work with peace of mind, carry out their duties with a high level of ethics and responsibility, and play an integral role in society as a company trusted by stakeholders.



The Netherlands Functional Chemicals Group

Managing Director Henk Kalsbeek, Dejima Tech B.V.

Dejima aims to conduct its business in a socially responsible and ethical manner, to contribute to the community in which it operates and to respect the needs of employees, shareholders, customers, suppliers, regulators and other stakeholders. Dejima is committed to maintain a healthy and safe working environment that ensures tolerance, respect and dignity for all its employees. Dejima is committed to providing equal opportunity in all aspects of employment and will not engage in or tolerate unlawful workplace conduct, including discrimination, intimidation, or harassment. Dejima recognizes that pollution prevention, biodiversity and resource conservation are key to a sustainable environment, and will effectively integrate these concepts into its business decision-making. All its employees are responsible and accountable for contributing to a safe working environment, for fostering safe working attitudes, and for operating in an environmentally responsible manner.



Europe Functional Chemicals Group

Representative Director & President Yasuyuki Kitayama, Euro Nippon Kayaku GmbH

In Germany, there is a labor court that exclusively handles labor issues and companies are required to carry out business activities following CSR management and give consideration to their employees. In this regard, people are very aware of CSR in Germany. At Euro Nippon Kayaku we use printed versions of the KAYAKU spirit to broaden understanding of CSR management, and to ensure employees safety and create healthy workplaces, we strive to prevent all accidents and injuries during the commute and make sure employees take all their paid leave. Moving forward, we are committed to actively carrying out CSR activities in consideration of the local community.



Europe Safety Systems Group

President Susumu Tokutake, INDET SAFETY SYSTEMS a.s.

In 2014, INDET SAFETY SYSTEMS a.s. celebrated its 15th anniversary and through commemorative events we worked to broaden employee understanding about CSR. In addition, we continue to deepen relationships with local communities through our activities at hospitals, schools, and welfare facilities. The automotive industry continues to globalize and today more than ever we must supply parts of the highest possible quality. Our promise to stakeholders is to supply great



products around the world and in the process help to protect human life from traffic accidents.

South Korea Functional Chemicals Group

Representative Director & President Keitaro Tada, Nippon Kayaku Korea Co., Ltd.

Nippon Kayaku Korea (NKK) imports Nippon Kayaku's functional materials to sell to customers in South Korea. Functional materials are chemical substances, so prior approval must be received for their import to South Korea. On January 1, 2015, South Korea enacted a new law and regulation on chemicals called K-REACH as well as a separate law on chemical substance controls. NKK will steadfastly comply with this new regulation and law on chemicals.



Taiwan Pharmaceuticals Group • Functional Chemicals Group

General Manager Jiro Hanada, Taiwan Nippon Kayaku Co., Ltd.

Taiwan Nippon Kayaku markets products from the Pharmaceuticals Group and Functional Chemicals Group and also carries out market research. Currently, Taiwan Nippon Kayaku is carrying out daily activities to realize the KAYAKU spirit. Our commitments include: (1) correctly understanding customer needs and striving to improve quality of daily work, conveying these practices to related departments; (2) contributing to cultural and economic exchange by actively participating and supporting activities and events of the Interchange Association Japan and the Taiwan Chamber of Commerce; and (3) displaying corporate vision boards primarily inside to constantly raise awareness of the KAYAKU spirit and carrying a card at all times that contains our corporate vision. Moving forward, we will continue to proactively carry out CSR activities for the benefit of the local community.



Mexico Safety Systems Group

Representative Director & President Yoshitsugu Kawata, Kayaku Safety Systems de Mexico, S.A. de C.V.

Kayaku Safety Systems de Mexico (KSM) is a young company that is only eight years old, but we continue to grow everyday as each and every employee works to fulfill KAYAKU spirit. We carry out activities with the goal of becoming a company recognized in the local community for its four missions. These include: (1) listening to and understanding the voice of customers; (2) constantly and continually striving to improve products; (3) create an expansive culture inside the company with accountability and pride, and (4) fulfilling responsibilities as an organization and a member of society.



Malaysia Safety Systems Group

Representative Director & President Shinji Ichikawa, Kayaku Safety Systems Malaysia Sdn. Bhd.

Kayaku Safety Systems Malaysia is a young company established in Malaysia in December 2012 to manufacture and sell automotive safety components. In 2015, we finally initiate the shipment of mass produced products. Because we are a young company, our workforce is also youthful as well as pliable and sensible. We constantly share the message of KAYAKU spirit within the company to raise employee morale. With safety of paramount importance, we supply only the highest quality products knowing that these products can directly affect the lives of our customers and have helped to reduce the number of automobile accident fatalities in the community. We are also mindful of the environment and constantly work to generate added value for the community, while improving quality of life and economic activity.





Third-Party Opinion

Masahiko Kawamura

Senior Researcher and Director of ESG Research for the NLI Research Institute

Profile

After completing his master's degree from the Faculty of Engineering of Kyushu University in 1976, Mr. Kawamura joined Mitsui Ocean Development & Engineering Co., Ltd. (MODEC). In 1988, he joined NLI Research Institute, where today he belongs to the Insurance Research Department. Mr. Kawamura specializes in environmental management, CSR, and environmental business practices. He is a Vice Chairman of the Sustainable Management Forum of Japan (SMF), BERCC (Fellow), Alterna (Principal of CSR study school).

Mr. Kawamura has authored *The Perfect Guide to CSR Management*, and coauthored various other books including *An Introduction to Environmental Management*, *SRI and New Companies/Financial Institutions*, *Carbon Disclosure*, and *New Trends in Integrated Reporting*, among others.



About the CSR Reporting: Implementing PDCA Reporting for the CSR Action Plan

The overall structure of this year's report is almost the same as last year, and the activities of the Nippon Kayaku Group are reported in order of major stakeholders. But I feel that a more conventional reporting style for the PDCA cycle should be employed presenting how "the Mid-term CSR Action Plan" has been implemented and what are the outcomes as well as issues to be improved. Otherwise, another approach would be to specify the relationship between stakeholders and the action plan. Failure in doing the above will mean the plan stands alone by itself. I look forward to Nippon Kayaku's efforts to address this issue in 2016.

Related to the above, in my last year's third party review I pointed out that the self-evaluation on implementation of the Mid-term CSR Action Plan should include issues and improvements with regard to items with lower scores. This is very important from a PDCA viewpoint and I noticed that in this year's report a new category named "Future response" has been added.

I found that the layout of the online version of the report to be much more concise and easier to understand. However, I did find there was room for improvement in terms of the linkages between the abridged print version (digest) and the online version. For example, there is no mention of "the CSR Procurement Guidebook," which forms the basis of the Company's supply chain management, in the digest version and no link to the online version in the guidebook.

About the Content of the CSR Report: Distinguishing and Integrating the Company's Social Mission and Social Responsibilities

In conjunction with the new mid-term business plan "Take a New Step 2016" that was launched this fiscal year, which marks Nippon Kayaku Group's 100th anniversary, a new "mid-term CSR Action Plan 2016-2018" was also compiled. The new CSR framework is revamped from the past structure and organized into four categories under the slogan of "Safeguarding the life and health of consumers, and supporting a comfortable life" which outlines the strategic directions of the company that will contribute to a sustainable society."

Given that the number of items was reduced from 24 to 17, per my proposed revision and changes last year, the explanation of each should be somewhat more detailed. As for the details of the new Action Plan, I believe that "practicing CSR and realizing CSV" should align with one another, as I advocate, and that the details of this plan provide a valid argument for a chemical company. Given this, I would like to point two future issues to be

addressed.

First, I believe the Company should establish quantitative targets and KPI that serve as progress indicators, which can be started with those items possible. More should be done than simply indicating a direction to work toward with qualitative targets alone, as this will not lead to a sharing of awareness across the entire company. Second, subsidiaries should be sorted according to their location—either in Japan or overseas—so that more realistic targets can be set. Nippon Kayaku has begun raising awareness at overseas group companies based on local conditions and social issues, but it appears to me that the overall plan was created with companies in Japan in mind.

Therefore, I propose more frank and honest dialogue to be held between the Company's management and other internal stakeholders and external experts and NPOs, among other outside stakeholders. This is because Nippon Kayaku has already reached this stage.

Nippon Kayaku has constantly delivered new products required of society through technological innovation as a chemical company closely in tune with changes taking place externally. In other words, Nippon Kayaku has passed down its "technology-centered approach" as part of its corporate DNA. In a globalized world, however, technology alone does not guarantee sustainable growth. As overseas sales nearly account for half of its sales, Nippon Kayaku has been approaching "the second phase of CSR-centered management". I expect the Company to work toward further deepening its CSR-centered management in an effort to safeguard its corporate value and promote creativity and innovation.