

## [Important Issues] Quality and Customer Safety

### Policy and Basic Approach

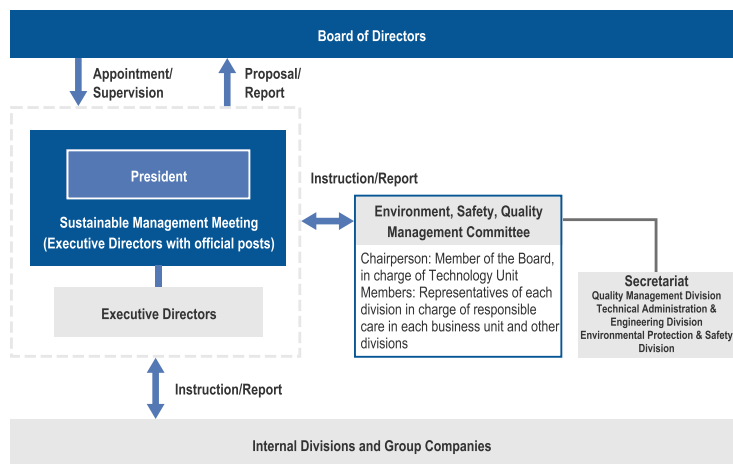
In order to provide safe, secure, high-quality products to society, the Nippon Kayaku Group has established the Declaration on Environment, Health and Safety, and Quality as a fundamental policy based on its corporate vision-the **KAYAKU spirit**-and established a quality assurance management system. Through these, we are working to properly operate our quality management system and rigorously implement quality governance, including the indicator set for key sustainability issues. We also recognize that responsibility for the entire life cycle of all products-from planning, development, and production to disposal and recycling-as well as for resources, energy, and information, etc., is also a key element. Based on this recognition, we are also focusing on raising the quality awareness of our employees.

> [The Declaration on Environment, Health and Safety, and Quality](#)

### System

The Nippon Kayaku Group has established an Environment, Safety, Quality Management Committee as an exclusive committee of the Sustainable Management Meeting, chaired by the President, under the direct supervision of the Board of Directors, to oversee quality management.

The committee consists of the quality assurance supervisors of each business division and indirect divisions at the head office. It formulates quality assurance policies, discusses issues and response measures relating to the state of quality activities, and works to strengthen the quality assurance management system of the entire Group through proposals and reporting to the Sustainable Management Meeting.



### Acquisition of International Certification

The Nippon Kayaku Group operates businesses through its Mobility & Imaging Business Unit, Fine Chemicals Business Unit, and Life Science Business Unit. To build an appropriate quality management system for various business formats and develop and provide high-quality products and services, we have acquired international standard certifications for quality assurance for each business.

In the Mobility & Imaging Business Unit, the Safety Systems Group, Himeji Plant, and Research & Development Division have obtained the IATF16949 automobile industry international quality management system standard certification, formulated by the International Automotive Task Force (IATF). Overseas Group companies that manufacture automotive safety components have also acquired IATF16949 certification, and are working to provide higher quality products.

In the Fine Chemicals Business Unit, Fukuyama Plant, Asa Plant, Tokyo Plant, head office and R&D Laboratories, and Taiwan Nippon Kayaku began integrated operation of a quality management system in October 2020, and obtained ISO9001 integrated certification in July 2021. The Life Science Business Unit's Pharmaceuticals Group's Takasaki Plant and Pharmaceutical Research Laboratories have acquired ISO9001 certification and ISO13485 integrated certification, which is a quality management system standard for medical devices and in vitro diagnosis pharmaceuticals. NIPPON KAYAKU FOOD TECHNO, a Group company, obtained the ISO22000 certification for food safety management systems in October 2022. The Agrochemicals Group's Kashima Plant and Agrochemicals Laboratories began integrated operation of a quality management system in March 2021, and obtained ISO9001 integrated certification in August 2021.

> [Business Sites with Quality Management System Certification](#)

### Quality Audits

The Nippon Kayaku Group has formed an audit team consisting of Quality Management Division members, who regularly conduct quality audits.

Quality audits is used to confirm that proposals for improving the level of quality assurance and quality management systems are functioning effectively and efficiently at domestic business sites and overseas Group companies. It supports the implementation of quality management and the enhancement of governance for the whole Nippon Kayaku Group.

### Indicators

Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results	FY2022 Topics for initiatives
Quality and Customer Safety		<ul style="list-style-type: none"> <li>Enhance our quality control and quality assurance systems by continuously improving our quality management system and ensuring thorough quality-related governance</li> <li>Implement quality management, improve production efficiency and reduce process abnormalities through digitalization</li> </ul>	Number of serious complaints by customers*	0	1	<ul style="list-style-type: none"> <li>In FY2020 and FY2021 web conferencing systems and similar solutions were used for most activities including quality audits, quality education and training, and quality improvement activities due to the COVID-19 pandemic, but practical activities have now resumed</li> <li>In terms of educational activities to improve quality assurance and quality, to coincide with the start of <b>KV25</b>, we created a Quality Mandalat that forms the basis for the systematic implementation of various quality-related education</li> </ul>
			Number of serious quality process abnormalities in processes*	0	1	

\* Losses of 10 million yen or more

## Initiatives

### Promotion of Quality Assurance and Quality Improvement Activities

In the Nippon Kayaku Group, the Technology Unit, Quality Management Division play a central role in quality assurance and quality improvement activities. To guarantee stable quality, we work to strengthen our technical capabilities for quality management, and are engaged in quality audits, quality education and training, and quality improvement activities with the aim of reducing customer complaints and quality process abnormalities.

In 1948, factory engineers at Nippon Kayaku began to voluntarily consider statistical methods as quality control activities. It was as a result of the active continuation of those activities that they were able to win the Deming Prize in 1963. This spirit of quality improvement has been passed down to this day. Not only in Japan, but also at overseas Group companies, efforts in quality improvement activities led by on-site engineers as the A3 Activities (KAIZEN) Presentation Conference have led to the achievement of various results. The in-house quality education textbook "Quality Management for Everyone"-from around the time of receiving the Deming Prize-has also been brushed up into a modern version, and is being used as one of the Group's education and training materials.

#### ◆ Initiatives in Each Business Unit

In addition to the educational programs provided by the Quality Management Division, each of the Nippon Kayaku Group's business units are implementing various quality assurance activities tailored to each industry and business type.

#### Mobility & Imaging Business Unit Global Quality Control

The Safety Systems Group supplies automotive safety components to customers around the world, for which it needs to provide and guarantee a consistent standard of quality. The Safety Systems Group has global manufacturing bases, and the Quality Control Department at Himeji Plant-its mother plant-works together with each site as a leader to provide technical support and other support.

The Production Division, Global Quality Assurance Department works to enhance global governance and engages in quality improvement activities toward achieving globally unified quality.



Trainees from Malaysia and members of Himeji Plant's Quality Control Department

#### Quality Improvement Activities with Suppliers

Continuous quality improvement based on trusting relationships with suppliers is indispensable to promptly provide high-quality products to the market.

In the Safety Systems Business, the Quality Control Department conducts process audits, quality status checks, and quality education such as advice for quality improvement at the stage of selecting new suppliers.

The Nippon Kayaku Group Quality Manual is also sent to all suppliers, and all suppliers submit receipts for their consent to the manual's contents.

The Planning & Purchasing Department conducts regular audits of suppliers depending on the type and importance of procured products. Through regular audits, they check the Nippon Kayaku Group's basic approach to quality assurance and quality management standards, check the quality status of suppliers, and provide advice on quality improvement.

In FY2022, the department conducted regular audits of seven major suppliers (two on-site audits and five document-based audits using check sheets). As a result of these regular audits, there were no cases that led to serious quality problems. With regard to audit findings, we have asked our suppliers to submit a document detailing their process and product audit improvement plan and response measures, and confirm that issues had been rectified.

Continuous communication with suppliers is important in order to maintain and improve quality. We will continue to exchange opinions regularly and work together with our suppliers to maintain and improve quality.

#### Fine Chemicals Business Unit Initiatives to Prevent Quality Fraud and Data Falsification

The Fine Chemicals Business Unit has established a Quality Assurance Division that is independent from the business unit itself, and has three domestic plants (Fukuyama Plant, Asa Plant, and Tokyo Plant) that support its three businesses (Functional Materials, Color Materials, and Catalysts) and carry out quality control and quality assurance for each product. We are also working to strengthen the business unit's quality assurance system in cooperation with the Quality Management Division, which oversees quality control in each of the Group's business units. As an initiative to prevent quality fraud and data falsification, we have assigned a representative on-site organization of the Quality Assurance Division to each plant to play a role in enhancing governance on site. At the same time, we are working to implement quality patrols and foster a quality-oriented work culture in cooperation with the plant quality control departments. At Fukuyama Plant and Asa Plant, as of 2021, we have already introduced a system that reduces human intervention in product inspection data processing as much as possible, aiming to improve data integrity (LIMS: Laboratory Information Management System = contributing to the prevention of quality fraud such as automatic recording of inspections).

We will continue to pursue improvements and aim for a quality assurance system that is trusted by both customers and society.

#### Life Science Business Unit Medical Information Service Center and Securing Customer Trust

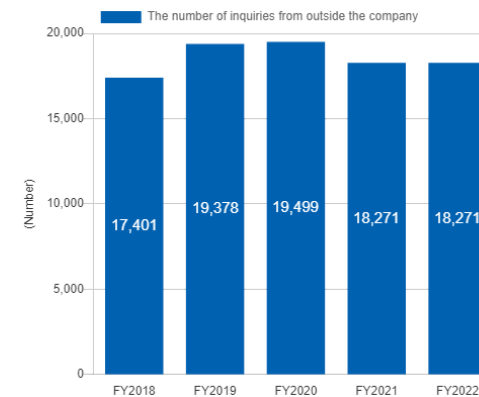
The Medical Information Service Center accepts toll-free calls from patients and medical professionals with various questions relating to our pharmaceuticals and medical devices, such as anti-cancer drugs, treatments for autoimmune diseases and intravascular embolic materials. The number of telephone inquiries received in FY2022 was 18,271. Staff at the Medical Information Service Center work diligently to provide accurate responses to each inquiry to ensure that all of the products supplied by Nippon Kayaku will perform at highest possible level. We also conduct surveys to check whether our responses meet the expectations of customers as part of our continual improvement initiatives.



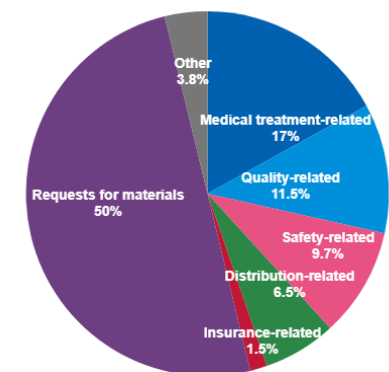
Medical Information Service Center

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 communicated 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."

#### Change in the Number of Inquiries from Outside the Company



#### Inquiry Content Type Classification



Information for Patients and their Families

[IBD-INFO \(Japanese\)](#)



[RHEUMATISM RA-RA-RA \(Japanese\)](#)



[Breast Cancer Info Navi \(Japanese\)](#)



TOPICS: Introduction of RPA

In the manufacture and sale of pharmaceuticals, etc., the Pharmaceuticals Business, is required to report information such as drug side effects to the Ministry of Health, Labour and Welfare (MHLW) in accordance with the Pharmaceuticals and Medical Devices Act (the Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices.) In recent years, the amount of information has increased significantly, partly due to a remarkable increase in information from overseas. At the same time, information on side effects is required to be reported within a statutory deadline period, and there is a risk that even a single mistake can lead to a delay in reporting. Persons in charge of these business processes, who manually received the collected information, were therefore required to put in a lot of effort to process and confirm the information, because it was not possible to make any mistakes, along with increase in the amount of information to be processed. In order to improve this situation, we have automated the receipt of overseas information by email by introducing RPA\*. By entrusting RPA with the processes of determining the date on which information was obtained and actually receiving information, it has become possible to complete this work accurately, in a short period of time. This improvement has also led to improvements in work quality, such as improved work efficiency and acquisition of new skills. Currently, we are considering and implementing automation for various business processes, driving further improvements in quality.



\* RPA (Robotic Process Automation): Automation of business processes by robots.

Quality Education for Suppliers

The Agrochemicals Group maintains and improves the quality of its contract manufactured products by conducting regular audits and close dialog with domestic and overseas manufacturing contractors. Audits are conducted in collaboration with our Quality Assurance and Technical Departments, as well as the Research Department as needed. We conduct surveys based on manufacturing contractor questionnaires regarding compliance with laws and regulations, quality assurance systems, quality control and manufacturing processes, etc. After identifying items with low self-evaluation scores in advance, we then attempt to confirm them on-site wherever possible. In the case of manufacturing contractors that have had abnormalities or nonconformities in the past, we confirm that sufficient measures have been taken to prevent the recurrence of such abnormalities, and take steps to prevent similar abnormalities from occurring in the future by applying the same measures with regard to other manufacturing contractors. If an audit finds that the efforts for improvement are insufficient, a request for improvement is issued, requesting that corrective measures are taken promptly. We will continue striving to improve the quality of our products and customer satisfaction, support the supply of food to consumers, and contribute to the development of sustainable agriculture.

Quality Education and Training Activities

In order to clarify the issues required for quality assurance and quality improvement activities, the Quality Management Division organizes quality education focused around the **KAYAKU spirit**-our corporate vision-as the center of our Quality Mandalat, and systematically implements quality education in line with this concept.

The Quality Mandalat is further subdivided into eight other sections, and the knowledge and skills necessary to solve the issues of A through H in the table and realize the ideal vision are defined accordingly. In quality education in accordance with this, in order to enable R&D and factory personnel in each business field to take classes efficiently and effectively, we have devised various training methods using both online and offline approaches in addition to group training, training utilizing a web conferencing system which does not involve the movement of participants, and a hybrid method in which instructors are dispatched to each business site and lectures are streamed simultaneously to multiple business sites. After education and training, we conduct questionnaire-based surveys and gain feedback on the quality and quantity of course content, which also leads to further improvement.

(KAYAKU spirit: Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.)

A Stable supply	B Driving digitalization	C Good communication
D Increasing quality awareness	<b>KAYAKU spirit</b>	E Continuous improvement
F Rational management of facilities and equipment / components	G Rational implementation of process design and process control	H Rational risk control

Quality Mandalat

Sample of the Training Content

- Field Data Analysis -Fun Hands-On Learning School-
- Internal quality auditor training
- "Why? Why? Analysis" training
- Human error response measure training

We also provide quality education for all executives and employees through e-learning based on the in-house quality education textbook, Quality Control for Everyone. The attendance rate has remained high, with an average attendance rate of 97% for FY2019 through FY2022. Each and every Group employee is working hard every day to improve quality awareness.

Attendance of Common Education for All Executives and Employees (in Japan)

Name of training program	Main themes covered	Main target	Training period	Training format	Number of sessions	Average attendance rate
Quality control for everyone	Basic knowledge of quality control, quality standards and inspection standards, response measures when problems occur, etc.	All executives and employees	2019-2022	e-Learning	20 times	97%

Quality Improvement Activities

The Nippon Kayaku Group has adopted a method called "Why? Why? Analysis," with the aim of investigating the causes of quality process abnormalities and customer complaints, effectively preventing repeat occurrences by working together as a united workplace, and formulating appropriate response measures. In 2014, in order to make more active use of Why? Why? Analysis, we formed promotion teams from each plant and created a Why? Why? Analysis Manual, which we are prevailing to each workplace. So far, we have repeatedly revised the manual and created foreign language versions so that it can be distributed to overseas Group companies, and are conducting training sessions which are useful in revitalizing improvement activities in workplaces both in Japan and overseas.

