



## With Our Customers

The Nippon Kayaku Group conducts company-wide quality activities under its quality system in order to supply the best products to customers. We are mindful that product quality improvements, safety and reliability, as well as the provision of technical services and information are paramount to improving customer satisfaction.

### Quality Initiatives

The Nippon Kayaku Group has established a basic policy called The Declaration on Environment, Health and Safety, and Quality and has built a quality management system to continually deliver the best products that satisfy customers. We deploy various initiatives for quality across the entire company and work on quality assurance and quality improvement activities to increase customer satisfaction.

#### The Declaration on Environment, Health and Safety, and Quality

The Nippon Kayaku Group, under the spirit of its CSR philosophy and Responsible Care, has formulated The Declaration on Environment, Health and Safety, 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 Environment, Health and Safety, and Quality

Enacted November 7, 1995  
Amended May 22, 2017

The Nippon Kayaku Group, under its corporate motto of "KAYAKU spirit", which calls for continuously providing society with the best products through ceaseless progress and the combined forces of our consciences, we will contribute to the realization of a sustainable society that safeguards the life and health of consumers, and supports a comfortable life.

#### Fundamental Policies

1. We will strive to maintain and improve the environment, people's health and safety across the entire product lifecycle, from R&D to production, distribution, sales, recycling, and disposal.
2. We will strive to conserve the environment by introducing and developing technologies that are useful toward reducing waste, carrying out the appropriate disposal of waste, conserving resources, conserving energy, and implementing global warming prevention measures.
3. We will actively provide business partners with information needed for the safe usage and handling of our products and for conserving the environment.
4. We will enhance the quality of not only products, but operating processes as well, and also work to enhance customer satisfaction.
5. We will heighten employee knowledge and skills through education and training and achieve our goal of zero pollution, zero injuries, zero accidents and enhanced quality.
6. We will disclose information so that stakeholders correctly understand our business activities and also strive to engage in dialogue with local communities and government authorities.

June 25, 2019

  
President & Representative Director  
Nippon Kayaku Co., Ltd.

## Quality Assurance System

Quality assurance at the Nippon Kayaku Group is carried out through a control system headed by the Environment, Safety, and Quality Assurance Management Committee, which is chaired by Nippon Kayaku's President.

This committee deliberates and makes decisions on problems and countermeasures regarding the quality assurance policy and quality activity status.

Furthermore, each business division has established a quality assurance department, which is the cornerstone of quality assurance for each business, and has strengthened the quality assurance system.

## Quality Assurance and Quality Improvement Activities

The Quality Management Division of the Technical Operations Group heads up the Nippon Kayaku Group's quality assurance and quality improvement activities.

As a quality improvement activity, we are enhancing quality education by promoting in-house training for managers and practitioners of quality risk management and attending external quality training, and carry out various training to enhance and reinforce quality control skills in order to stabilize quality. To verify that the Nippon Kayaku Group's quality management system is operating effectively, we conduct quality assessments of business sites in Japan and group companies, including those outside Japan.



The "Field Data Analysis - Enjoying Learning Through Experiences" workshop in progress. Participants logically discuss complex cause-and-effect relationships at their desk and then carry out experiments to test out their theories.

## Quality Assurance and Quality Improvement Activities at each business site

Each business site of the Nippon Kayaku Group deploys various types of quality assurance activities. Also, we are building a database of quality process mishaps so that it can be shared horizontally at other business sites as well.

### Quality assurance activities

- Quality patrols
- Trend management (visualization)
- Activities to prevent reoccurrences of quality troubles (why-why analysis, etc.)
- Reinforcement of quality management technologies

### Quality improvement activities

- Quality risk assessments
- Improvement of design and development capabilities
- Statistical analysis method ("Field Data Analysis - Learning Through Experience")
- Activities to prevent reoccurrences of quality troubles (why-why analysis, etc.)

## Quality Risk Assessments

Whenever changes are made to production process, such as the installation of a new machine that will take the place of a new worker, for example, (whenever so-called 4M changes are made), we conduct a quality risk assessment to prevent quality troubles before they occur. The 4M change is associated with the four acronyms M: "Man", "Machine", "Material", and "Method".

## The educational activities for the quality assurance and the quality improvement

As the educational activities for the quality assurance, We offer "Field Data Analysis - Learning Through Experience" program geared toward researchers and developers and plant employees for practical training on statistical analysis methods, send employees to take part in outside quality training, and provide outreach teaching at plants as part of internal auditor training.

Here, we will take a look at measures to reduce customer complaints and curb quality process failures.

At each of our plants, we utilize quality control methods such as management diagrams as well as carry out quality patrols and QYT activities (quality hazard detection training), as part of our daily quality control activities.

## Activities to prevent recurrence of customer complaints and quality process abnormalities

For customer complaints and quality process failures we encourage the use of why-why analysis by the workplace using Nippon Kayaku's why-why analysis manual in order to reinforce preventive measures. In addition, we have published English and Chinese versions of this manual, and are conducting "5-Whys Analysis" for overseas Group companies of Nippon Kayaku.

### Published the "5-Whys Analysis" manual of Nippon Kayaku Group

The Quality Management Promotion Department analyzed that there were many similar cases when analyzing quality abnormalities that occurred in the past, so we analyzed that there is insufficient ability to investigate what is at the root of the cause. Therefore, we have introduced the "5-Whys Analysis" with the aim of accurately understanding the relationship between the cause and effect, identifying the underlying "root cause", and preventing the recurrence of similar cases. We also gather members from each factory to create a "5-Whys Analysis" manual. In addition to the Japanese and Chinese versions created so far, we have added an English version to this manual.



### 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" open for all employees, with this name later changed to the "Meeting of the Movement for Tomorrow." The scope of these activities has expanded from quality improvement to operational reform, cost reductions, 5S activities, next-generation development, energy conservation, health and safety improvement, and environmental conservation.

Starting in 2014, these small group activities were revamped exclusively for Nippon Kayaku with a focus not only on improvement, but also on human resources development and CSR activities.

### Global Quality Control and Human Resources Development within the Safety Systems Group

The safety systems group supplies automotive safety components to customers around the world. This requires that it provide and guarantee the same standard of quality. The group has production facilities worldwide and so the Himeji mother plant has implemented the Robust design\* resilient in the face of numerous variations given the requirements of differing production sites in terms of culture, language and technologies. This approach has enabled it to provide the same level of quality worldwide.

At its global production sites, locally hired managers and line workers are selected to take part in extended trainings at the mother plant to obtain essential knowledge and skills. After completing their training, they return to their workplaces and serve as instructors to pass on their knowledge and skills to others.



Technical interns from Malaysia and members of the Himeji Plant's Quality Assurance Department

\* Robust design: A design in which product performance and quality does not vary and is not affected by interference or measurement errors.

## Aiming to Create Products that Satisfy Customers

The Nippon Kayaku Group is undertaking various research and development for new products and services in order to supply products that support the enriched and healthy lifestyle of its customers.

## Head-up display related products for automobiles (under development)

Nippon Kayaku is developing products that can contribute to the safe driving support systems. Head-up displays, which display information on the windshield or clear screen of cars, allow the driver to access information without averting their line of sight. These displays are anticipated to become more popular going forward in place of conventional car navigation systems.

However, as windshields are made up of two plates of glass, there is the issue with head-up displays showing double images if simply projecting an image onto the glasses, while the display is difficult to see when wearing polarized sunglasses.

To address this issue, we developed a new product called Freelix<sup>®</sup> HUF<sup>※</sup> using our proprietary optical design expertise.

Freelix<sup>®</sup> HUF is a breakthrough film that eliminates double image of a projected image as well as allows images to show up vividly to the eyes even when wearing polarizing sunglasses by inserting this film between the two plates of glass of a windshield. This was exhibited as a conceptual sample at the 2017 Highly-functional FILM EXPO, which attracted many visitors who were able to experience its effects. Currently, we are working on development aimed at commercialization.

Together with our group companies, we will continue to propose new products with features that will contribute to the "Environment, Energy Conservation, and Safety."

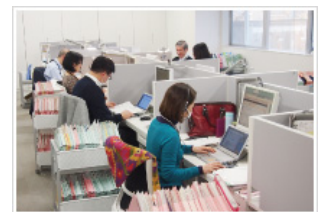
※ [Freelix<sup>®</sup> HUF] Light control film for head-up displays.



HUD using Freelix<sup>®</sup> HUF

## 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

## Information Site

We have prepared websites which are useful for patients and their families.

### ■ 「Note on Fibroids」

This is a comprehensive information site on uterine fibroids for the general public. Filled with helpful information on what Uterine Fibroids are and their symptoms and treatment, the site provides easy-to-understand information for women who are busy with work, child-reading, care-giving, hobbies, and the like.



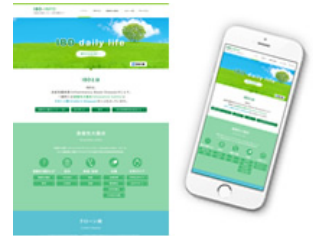
[> Note on Fibroids](#) 

## ■ 「IBD-INFO」

This is an information site 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](#) 

## ■ 「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."



> [RHEUMATISM RA・RA・RA](#) 

## ■ 「Breast Cancer Info Navi」

Breast Cancer Info Navi was launched in 2006 as an informative website for breast cancer patients.

This Navi aims to provide information from specialist physicians and pharmacists to all women, not just breast cancer patients and their families.

> [Breast Cancer Info Navi](#) 



## Initiatives at the Himeji Plant

### ■ New Dojo Set up as an Education and Training Venue

In fiscal 2018, the Safety Systems Group started offering education at the Himeji Plant's new Dojo (Educational Center), which will serve as an educational and training venue for employees.

The Dojo is divided into zones for educating new hires about the Company's safety and quality rules and prohibitions (dos and don'ts) in an easy-to-understand format and zones for providing hands-on experience. Also, incorrect judgments made during emergencies by plant or research lab on-site supervisors will result in a spate of defective products. We have therefore launched courses about our products and processes and that review past problems with products and processes, which are led by veteran employees selected from the plant and research groups to enhance the skill levels of mid-range employees (120 people).



Furthermore, the Safety Systems Group's overseas subsidiaries are also setting up Dojos to offer similar education.

## Agrochemical Business Initiatives

### ■ Contributing to Agricultural Production with Our New Insecticide (FINESAVE®)

Launched in June 2018, FINESAVE® is new type of insecticide that is highly effective in killing thrips, silverleaf whiteflies, rust mites, cabbage moths, and other pests that plague leeks, onions, tomatoes, strawberries, white radishes, cabbage, and other types of produce.

Because FINESAVE® is a new kind of agent that does minimal harm to useful insects and the natural enemies of these pests, it can be used during the growing season, when the use of agricultural chemicals had to be restricted in the past. We are holding discussions with local instructional organizations regarding crop systems, usage of agrochemicals, etc., so that we can suggest ways to use this product efficiently and skillfully while taking maximum advantage of its attributes. We are working so that this agent can contribute to actual agricultural production in the future.



### ■ Initiatives for Improving Crop Quality

For higher-quality crops and the production of safer crops, the Agrochemicals Division is proposing ways to use our existing products, Leaf Guard® and Fumon®, along with our new product, FINESAVE®, which went on the market in June 2018 and is effective in killing such pests as thrips, rust mites, and cabbage moths.

We are conducting marketing and sales promotion activities that propose using FINESAVE® with Leaf Guard® (which is effective on a broad range of eggs, larvae, and adult insects) on such major cabbage and Chinese cabbage pests as cabbage moths, which have thus far been fairly resistant to existing agrochemicals, and that propose using FINESAVE® with Fumon® (which has the capabilities of spiracle-blocking agents plus spreading agents and is safe enough to use over and over until harvest time) on strawberries and the like.

We will continue our untiring efforts to improve crop quality in the future.



[> Agrochemicals Business](#) 