

Implementing Responsible Care

Message from the Executive Director in charge

The Nippon Kayaku Group provides society with the best products, technologies and services that bring happiness to people's lives, with consideration for the environment, safety and quality throughout the product lifecycle, from the procurement of raw materials to production, distribution, use, and disposal.

In our business activities, we endeavor to identify and reduce risks and prevent accidents and disasters, and safeguard the safety and health of every employee, based on philosophy that safety takes precedence over all else. In addition to conducting systematic employee education and training, we anticipate potential hazards relating to daily work tasks and chemical agents, and take proactive measures to ensure worker safety.

By operating an integrated quality management system in which our head office and factories work together, we work to continuously strengthen our daily quality improvement activities to prevent customer complaints and process abnormalities and improve customer satisfaction. In terms of environmental initiatives, in April 2022, we declared our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and are working to reduce greenhouse gas emissions with a view to achieving carbon neutrality by 2050. Looking ahead, we will contribute to the creation of a sustainable society with the aim of improving economic, environmental and social value through our business activities while appropriately grasping and analyzing climate change-related risks.



Member of the Board
Senior Managing Director
In Charge of Technology Unit
Yoshimi Inoue

Policy and Basic Approach

The Declaration on Environment, Health and Safety, and Quality

The Nippon Kayaku Group, under the spirit of its corporate vision 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 vision 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 customers, 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 disasters, 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

Nippon Kayaku Co., Ltd.

President and Representative Director

* Responsible Care: A voluntary activity under which companies that manufacture or handle chemical substances actively take measures considerate of the environment, safety and health across all processes from the development of chemical substances to their production, sale, consumption and disposal. The initiative began in Canada in 1985 and has now spread to encompass various countries around the world including Japan.

Our Responsible Care Policy

All Nippon Kayaku Group companies share a common mindset in efforts to prioritize safety above all and seek to prevent environmental and safety-related accidents and disasters, including compliance with laws and regulations not only domestically but also overseas. All Group employees engage in Responsible Care activities in line with the Declaration on Environment, Health and Safety, and Quality, working toward the realization of the **KAYAKU spirit**.

The Nippon Kayaku Group Annual Responsible Care Policy was created based on policies to be continued from FY2019 onwards, with a focus on safety and health activities with a key emphasis on identifying unsafe behaviors through 30-second patrols and fixed-point observations; the implementation of environment, health and safety audit with a key emphasis on risk assessments; and targets aimed at decarbonization, to achieve the environmental targets of the Medium-term Business Plan by FY2030. The policy is checked yearly, including with domestic Group companies. The main themes added to the FY2023 policy related to Japan's Industrial Safety and Health Act and the handling of partial revisions to its regulations. Going forward, the Group will continue to conduct Responsible Care activities based on this policy.

Nippon Kayaku Group Annual Responsible Care Policy

◆ < Targets >

- Serious accidents / disasters: zero
- Serious environmental accidents / disasters: zero
- Serious traffic accidents: zero

◆ 1. Key issues in Responsible Care

- Companywide total Scope 1 + Scope 2 CO₂ emissions of 115,386t or less (common across the Group) (Companywide CO₂ emission reduction rate: at least 12% compared with FY2019 levels)
- Domestic Zero emission rate: 1% or lower
- Bolstering 30-second patrols and implementing fixed-point observation

◆ 2. Initiatives aimed at achieving zero accidents and disasters

- Audit methods with an emphasis on risk assessments
- Fixed-point observations tailored to the characteristics of each business site
- Strengthening measures to prevent heat stroke

◆ 3. Improvement of occupational health and safety in the workplace

- Appropriate response to the revised Industrial Safety and Health Act
- Identifying and following up on high-stress workplaces through stress checks and organizational analysis
- Appropriate operation of a health checkup results database
- Maintaining Health & Productivity Management Outstanding Organization Recognition Program

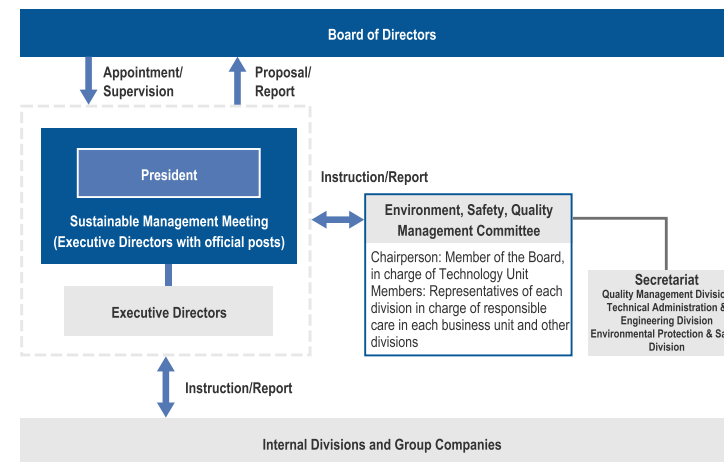
◆ 4. Activities to achieve environmental targets

- Enhancing external disclosure of climate-related information
- Strengthening of measures to reduce Scope 3 emissions (expanded requests for disclosure of emissions from raw materials, improved ton-kilometer accuracy, revisions to waste generation calculation methods)
- Strengthened promotion of MFCA (expansion of applicable business sites)
- Proper operation of cloud-based environmental data aggregation system (common across the Group)
- 3% annual reduction of Scope 1 + 2 CO₂ emissions at each business site (challenging target) (common across the Group)
- Establishment of methods to calculate product-derived emissions
- Development of plastic waste reduction targets and implementation of measures

System

The Nippon Kayaku Group has established the Environment, Safety, Quality Management Committee as an exclusive committee of the Sustainable Management Meeting, chaired by the President. The committee oversees the Nippon Kayaku Group's Responsible Care activities. The Environment, Safety, Quality Management Committee is representatives from divisions tasked with Responsible Care in each business unit and representatives from each general administrative division not belonging to a business unit. The committee deliberates over the implementation status of activities based on the Responsible Care Policy, issues with the activities, progress responding to those issues, draft policies for the following fiscal year, and draft policies and measures for solving issues related to climate change. The committee then reports and makes recommendations to the Sustainable Management Meeting.

The Environmental Protection & Safety Division implements environment, health and safety audit at Nippon Kayaku business locations and Group companies as an organizational activity, and reports the results of those activities to the Environment, Safety, Quality Management Committee.



Responsible Care Audits

◆ Basic Approach

Based on annual plans, Responsible Care audits are conducted for each Nippon Kayaku business location and some Group companies in the form of "environment, health and safety audit". Environment, health and safety audit are an initiative to check that business activities are being conducted properly with adequate consideration being given to the environment, safety and health, and to encourage improvements to any identified issues.

Environment, health and safety audit involve checks based on themes including Responsible Care, environmental conservation, security and disaster prevention, logistics safety, biodiversity, occupational safety, compliance, enhancement of health management, and the control of chemical substances. By providing advice and suggestions for improvements, we endeavor to prevent compliance violations, misconduct and mistakes while maintaining and improving the environment, health and safety. These activities fulfill the function of helping to build, maintain and improve the internal control systems of Nippon Kayaku and Group companies.

◆ Management System

Environment, Health and Safety Audit Team

The team is made up of the general manager of the Environmental Protection & Safety Division (team leader), members of the Environmental Protection & Safety Division (audit and secretariat) and the headquarters of the labor union.

Audit Items

- Progress of Responsible Care activities based on a Responsible Care progress checklist
- Implementation status of risk assessments for work processes and equipment with high hazard risks
- Status of action taken to deal with accidents that have occurred in the past, and the effects of recurrence prevention measures
- Site patrols (30-second patrols and fixed-point observations)
- Status of chemical substance storage and management
- Environment, health and safety system and status of compliance with related laws and regulations
- Other necessary matters related to Responsible Care

Targets

- Each business location of Nippon Kayaku (7 plants, 3 research facilities, 2 offices and 3 other sites)
- Domestic Group companies (3 companies within Nippon Kayaku business locations, 1 company outside Nippon Kayaku business locations)
- Overseas (China) Group companies (3 companies)

Frequency

Audit activities are implemented at a frequency of once every one or two years, determined based on the scale of the business location assessed, and the assessment results in the previous fiscal year. Follow-up audits may also be conducted based on the details of audit results and the status thereafter (no follow-up audits were conducted in FY2022).

Reporting of Audit Results

Audit results are provided as feedback based on the following classifications

- Positive points: excellent initiatives that will serve as a reference for other business locations and Group companies
- Issues: Items involving risks that could lead to accidents, environmental incidents or compliance violations
- Items of concern: Items that require improvement through health and safety, environmental conservation or compliance initiatives
- Suggestions: Points that if implementations could further improve environmental, health or safety efforts, even if there are currently no issues

The audit results are reported to business locations and Group companies that underwent assessment, related operating departments, the Environment, Safety, Quality Management Committee, and the Audit Division. In response to the results, the business locations or Group companies that were assessed employ the PDCA cycle to systematically implement improvements to the problem areas identified.

◆ Targets and Results

Environment, Health and Safety Audit Results (number of sites assessed)

Assessed business locations and group companies		FY2022
Plants		7
Research facilities		2
Offices		2
Domestic group companies	Inside business locations	3
	Outside business locations	1
Overseas group companies*		3
Total		16

* For overseas group companies, web conferencing systems are used to only go through Responsible Care progress checklists.

FY2022 Audit Results (number of issues identified across all 16 assessed sites)

Identification category	Responsible Care progress checklist	Risk assessment, etc.
Positive points	28	20
Issues	2	3
Items of concern	26	40
Suggestions	8	8

Initiatives

Disclosure of Results of Legal Violations

The Nippon Kayaku Group endeavors to prevent violations of environmental laws, environmental accidents and similar incidents from taking place, and has put in place systems to take prompt action should any such incidents occur. In FY2022, there were no accidents or violation of laws or regulations that had a material impact on the environment or accidents or violations of regulations related to water quality and quantity across the Nippon Kayaku Group as a whole. In addition, the Group was not subject to any fines, penalties, or other sanctions.

Number of Environmental Violations and Accidents

	Scope	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Cases of non-compliance with environmental laws and regulations	Consolidated	Cases	0	0	0	0	0
Number of major environmental accidents	Consolidated	Cases	0	0	0	0	0
Violations of laws and regulations, fines related to major environmental accidents and costs of penalties	Consolidated	Yen	0	0	0	0	0

Management of Chemical Substances

◆ Response to Laws, Regulations and Various Standards

Working on its sustainable management system, Nippon Kayaku formulates matters to be implemented regarding chemical substance control and specific action plans based on them through the Environment, Safety, Quality Management Committee, and pursues initiatives in accordance with those plans.

Response to Laws and Regulations on Chemicals in Japan

When releasing a new product on the market, it is necessary to make filings, registrations, volume notifications and conduct other procedure in accordance with the regulations of each country. In Japan, we respond by filing applications for new chemical substances under the Chemical Substance Control Act^{*1} and the Industrial Safety and Health Act^{*2}, and by submitting quantity notifications under the Chemical Substance Control Act. Additionally, in response to the revised PRTR Act^{*3} that went into effect in 2023 and the revised Industrial Safety and Health Act that will take effect in 2024, we will enhance systems for the appropriate management of released quantities and the self-directed control of chemical substances.

With the ongoing establishment and revision of chemical substance control legislation around the world, we deal with the laws and regulations of other countries and regions including Europe, the United States and Asia in addition to Japan by making use of databases for searching domestic and overseas laws and regulations while obtaining information about regulatory trends and amendments in a timely fashion in order to implement an appropriate response to laws and other requirements.

*1 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

*2 Industrial Safety and Health Act

*3 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Response to GHS and Providing of SDS for All Products

Due to the adoption of GHS^{*} in various countries, it has become necessary to publish SDS that comply with local laws and regulations in the local languages of the countries concerned, and to affix compliance product labeling. In terms of the efforts we have taken, in Japan we have responding appropriately to JIS revisions made in 2019 by making changes to our SDS and product labelling and acting in accordance with the revisions.

The Fine Chemicals Business Unit operates an SDS generation system (3E generate) that incorporates an extensive range of translations along with data on physical properties and toxicity, and uses it to issue SDS that comply with local laws and regulations, and to ensure products have GHS labeling.

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

Responding to Overseas Laws and Regulations Concerning Exported Chemicals

In the EU, REACH regulations^{*} went into effect in June 2007. All chemical substances (including chemical substances contained in chemical products), whether existing or new, which are manufactured or imported into the EU in the amount of one ton or more annually, are required to be registered with data on safety testing and other information. Since the regulations went into effect, various countries have strengthened their regulations concerning the registration of chemical substances. We check these regulatory trends as they arise and ensure that we respond to them without omission.

In the Fine Chemicals Business Unit, the Chemical Management Dept. of Quality Assurance Division oversees and supports the control of chemical substances including (1) handling chemical substance registration systems in Japan and overseas, (2) monitoring trends in legislation concerning chemical substances in various countries, formulating response measures, disseminating the information among relevant departments and providing instructions on action to take, and (3) managing product SDS issuance and product labeling.

* Registration, Evaluation, Authorisation and Restriction of Chemicals

Measures to Mitigate Risks in the Manufacturing and Handling of Chemical Substances

Against the backdrop of newly introduced requirements to conduct risk assessments at business locations that involve the manufacturing or handling of chemical substances due to the revised Industrial Safety and Health Act that went into effect in 2016, for new or changed operations involving the handling of substances subject to mandatory risk assessments and hazardous substances, Nippon Kayaku implements risks assessments using a database developed in-house and engages in risk mitigation measures when safety reviews are carried out. For the expansion of substances requiring risk assessments due to the revised Industrial Safety and Health Act that will go into effect in 2024, we will make improvements to our database and conduct risk assessments that comply with the provisions of the revised law, implementing centralized management to enable Companywide risk management.

We will post GHS pictorial labels in locations where chemical substances are handled so that workers recognize the hazards of chemical substances they could be exposed to.



We make sure that workers recognize the hazards of the chemical substances to which they could be exposed.

Training

Nippon Kayaku has created tiered training programs for each plant, and has made improvements to the content of its training on chemical laws and regulations including the so-called three SDS laws, namely the PRTR Act, Industrial Safety and Health Act and Poisonous and Deleterious Substances Control Act, with the aim of improving safety awareness.

Industry and International Initiatives

The Nippon Kayaku Group is a member of the Japan Chemical Industry Association and has supported LRI activities since 1999. We contribute through the partial funding of research costs and also attend committee meetings.

LRI stands for the Long-range Research Initiative, and is an endeavor promoted through cooperation between the chemical industries of Japan, the United States and Europe (Japan Chemical Industry Association, American Chemistry Council and European Chemical Industry Council). It is one of the voluntary activities of the International Council of Chemical Associations (ICCA), and supports long-term research into the effects of chemical substances on human health and the environment, with a focus on endocrine disruption, neurotoxicity, chemical carcinogenesis, immunotoxicity and the refinement of risk assessments.

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