



## Environment/Health/Safety/Quality 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.

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

The Nippon Kayaku Group, under the spirit of its CSR philosophy and Responsible Care<sup>※</sup>, 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.

※ 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 been developing high-quality chemical technology based products which are safely produced in the environment-friendly production equipment, and supplied to customers with maintaining and improving their quality. In terms of environment, we will steadily promote reducing manufacturing processes and energy waste, and tackle the issues raised in the "Sustainable Development Goals (SDGs)".

In terms of safety, we systematically carry out employee education and training. We will anticipate risks in daily work, and continue to supply our products.

In terms of hygiene and health, we will take various measures to maintain and improve the health of each employee. We believe that the Nippon Kayaku Group's social mission is to keep supplying high-quality products, that is the "best products", safely produced by the physically and mentally healthy employees.

## Nippon Kayaku Group Responsible Care

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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 Environment, Health and Safety, and Quality, with the ultimate goal of realizing the **KAYAKU spirit**.

The following "Nippon Kayaku Group Responsible Care Policy" was created as a policy that should be continued from FY2019, especially with "decarbonization" in mind, and confirmed throughout the Group. Unless otherwise specified, the Nippon Kayaku Group will continue to promote Responsible Care activities based on this policy.

### Nippon Kayaku Group Responsible Care Policy Statement

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 the spirit of Responsible Care and the Fundamental Policies stated in "The Declaration on Environment, Health and Safety, 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 initiatives for "Zero Accidents, Zero Injuries"

- Zero serious accidents, zero serious injuries
- Every Nippon Kayaku Group company shall prevent accidents and injuries by enhancing their ability to foresee potential risks by Risk Assessments and KYT/ K YK (Danger Prediction Training/Activities) and by promoting health and safety activities by means of patrols and inspection tours focused on pointing out unsafe actions

#### ② Promoting initiatives aimed at prevention of global warming and reduction of our environmental impacts

- Every Nippon Kayaku Group company (including those overseas) will establish their own targets in sync with their company and country of location, and aim to become an eco-friendly company.
- Integrate the management system ISO-14001 company-wide so that the environmental goals and the medium-term business plan work together in a Plan-Do-Check-Action cycle.
- Promote initiatives that reduce our burden on the environment by adopting MFCA on a company-wide basis and rethinking our production processes.
- Review the issues facing us over the medium-to long-term by reassessing company-wide risks and opportunities.
- Clarify and create concrete measures for the new 2030 environmental targets.

#### ③ Comprehensive chemical management

- Have all Nippon Kayaku Group companies properly ascertain and promote appropriate management of the hazard levels of chemical substances by using SDS and complying with GHS.
- Appropriately manage and maintain each chemical substance management DB.

#### ④ Response to biodiversity

- Comprehensively manage effluent and promote "prevention of pollution caused by over nutrition and other factors."
- Promote transition to FSC-certified products for paper products such as copy paper and packaging cardboard. Use stress checks and other group analytics to find out which of our workplaces have high-stress working environments and be sure to conduct follow-ups.

## ⑤ Consideration of employees' health

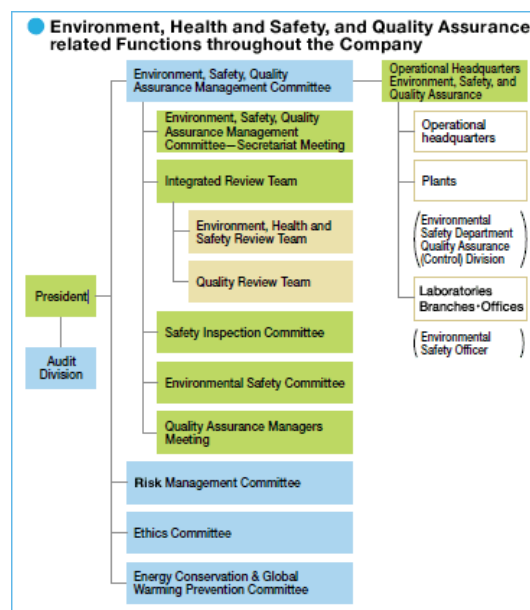
- Use stress checks and other group analytics to find out which of our workplaces have high-stress working environments and be sure to conduct follow-ups.
- Set numerical goals for the rate of participation in health management activities and the rate of specific-health-guidance implementation at each of our offices.

February 1, 2019

## 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 Environmental Management System

The Nippon Kayaku Group has moved forward with acquiring ISO14001 certification in order to develop, manufacture and provide eco-friendly products. We started acquiring ISO14001 environmental management system certification in 1998. Since then six of our plants have obtained certification, while other Group companies, including those outside of Japan, are in the process of obtaining this certification.

● Environmental Management System Certified Business Sites

Workplace	ISO14001
Fukuyama Plant	April 1999
Asa Plant	Sept. 1998
Tokyo Plant	Dec. 1998
Takasaki Plant	Jan. 2000
Himeji Plant	Jan. 2001
Kashima Plant	March 1999
POLATECHNO CO., LTD.	Aug. 2002
KAYAKU CHEMICAL (WUXI) CO., LTD.	Aug. 2006
Wuxi Advanced Kayaku Chemical Co., Ltd.	July 2007
Kayaku Safety Systems Europe a.s.	Dec. 2002
Kayaku Safety Systems (Huzhou) Co., Ltd.	Jun. 2016

## Quality Management System Authorization Status

The Nippon Kayaku Group has moved forward with acquiring certification for international quality assurance standards in order to provide and develop products and services of superior quality.

With respect to quality management system ISO 9001, which is an international standard for quality assurance, 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.

In the Pharmaceuticals Group, which includes the Takasaki Plant and the Pharmaceutical Research Laboratories, we are working to strengthen our quality assurance system and have acquired integrated certification for ISO 9001 and for ISO 13485, which is a quality assurance management system standard for medical devices and in vitro diagnostics.

Also, the Safety Systems Group, which includes our Himeji Plant and the Safety Systems Development Laboratories, has acquired IATF 16949 certification, which is an international quality management system standard for the automotive industry created by the International Automotive Task Force (IATF). Our automotive-related overseas group companies have also acquired IATF 16949 in their quest to provide higher-quality products.

● Quality assurance Management System  
Certified Business Sites

Workplace	● ISO9001 ■ ISO 13485 ▲ IATF16949
Fukuyama Plant	●
Asa Plant	●
Tokyo Plant	●
Functional Chemicals Group	●
Functional Chemicals R&D	●
Takasaki Plant	● ■
Pharmaceuticals Business	● ■
Pharmaceuticals R&D	● ■
Himeji Plant	▲
Safety Systems Group	▲
SSD R&D	▲
Kashima Plant	●
Agrochemicals Business	●
Agrochemicals Group	●
POLATECHNO CO.,LTD.	●
Wuxi Polatechno Optics Co., Ltd.	●
Moxtek, Inc.	●
Dejima Optical Films B.V.	●
RaySpec Ltd.	●
KAYAKU CHEMICAL (WUXI) CO., Ltd.	●
KAYAKU Advanced Materials Inc.	●
Wuxi Advanced Kayaku Chemical Co., Ltd.	●
NIPPON KAYAKU FOOD TECHNO CO., LTD.	●
Kayaku Safety Systems Europe a.s.	▲
Kayaku Safety Systems (Huzhou) Co., Ltd.	▲
Kayaku Safety Systems de Mexico, S.A. de C.V.	▲
Kayaku Safety Systems Malaysia Sdn. Bhd.	▲

**Kayaku Safety Systems de Mexico, S.A. de C.V. (KSM)**

**Obtained IATF16949 quality management certification for the automotive industry**

In June 2018, KSM Quality Management System received an external audit by LRQA<sup>※</sup> Certification Team according to ISO 9001:2015 and IATF 16949:2016 requirements, and we obtained the recommendation for the IATF Certificate.

To keep this certificate we have to take periodic audits by LRQA. Maintaining this certification endorse the commitments of KSM; providing high quality products through safety, high quality, increasing customer satisfactions and continuous improvements.

Achieving this certification is possible due to dedication, teamwork and commitment of KSM collaborators.

※ LRQA—third certification party for IATF certificate.



IATF 16949 Certificate



**GMP Authorization Status**

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).

● GMP<sup>※</sup>  
Approval  
Status

Workplace	Main governments
Takasaki Plant	Japan, USA, Europe, Canada, Brazil

- ※ 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.

## Response to environmental regulations

### Dealing with the Global Laws and Regulations on Chemical Products

The Functional Chemicals Group provides both domestic and overseas users with specialty industrial-use chemical products that take safety, quality, and the environment into account. As laws addressing the quality of chemical products are being developed and strengthened throughout the world, it is becoming increasingly important for the Nippon Kayaku Group to conduct its business in compliance with these laws and to be able to provide accurate information through our supply chain on the chemical substances in our products.

#### ■ Chemical Management System

The Chemical Management Department, which is part of the Quality Assurance Division, oversees and facilitates the Functional Chemicals Group's management of chemical substances. Its main tasks include (1) dealing with chemical substance registration systems in Japan and overseas, (2) keeping abreast of developments in each country's laws and regulations regarding chemicals, making proposals on how to deal with them, and informing and giving advice to the relevant departments, and (3) management of products' safety data sheets (SDS)<sup>※</sup> and product labeling.

- ※ SDS : Safety Data Sheet. A document that lists information about the hazards and toxicity of chemical substances that is given to another business when the company is transferring (or furnishing) chemicals or a product that contains chemicals

#### ■ Education and Assistance

Researchers involved in development and other group members involved in product sales need to possess correct knowledge about the laws and regulations on chemicals in the countries and regions where our products are sold. In fiscal 2019, we held study sessions with guest lecturers on laws and regulations concerning chemicals in China, South Korea, and Taiwan. A total of 75 people attended. In addition, since 2017, we have been operating an in-house "chemical management portal site" as a means of supporting our increasingly complex chemical management work. The site carries simple explanations and up-to-date information on various countries' chemical laws and regulations, ways to research lists of chemical laws and regulations, and cases of dealing with these laws and regulations. We plan to enhance the site so that it can respond to regulatory changes and contribute to our collective experience.

#### ■ Providing Hazard and Toxicity Information in Line with the GHS

As each country adopts the GHS,<sup>※</sup> we need to issue an SDS in each local language and attach it to our product labels in accordance with local laws and regulations. The Functional Chemicals Group operates an SDS production system (3E generate), which contains a wealth of translations, regulatory data for each country, and data on physical properties and toxicity, so it can print whichever SDS complies with the local laws and regulations for attachment to the product's GHS label. Also, since the Japan Industrial Standards (JIS) were amended in 2019, we are in the middle of a three-year transition period for changing over to new versions of the SDS and product labels that will comply with the new JIS.

- ※ GHS: Globally Harmonized System of Classification and Labeling of Chemicals

### Measures to Reduce Risk in the Manufacture and Handling of Chemicals

The 2016 amendment of the Industrial Safety and Health Act made it mandatory for workplaces to conduct risk assessments on the manufacture and handling of chemical substances. We are therefore performing risk assessments and implementing measures to reduce risk using a proprietary safety inspection system for new or revised production operations that handle substances mandated under this law or other hazardous or toxic substances.

The GHS label is attached at the site that handles the chemical, so that the users will be aware of the hazards and toxicity of any chemicals that they could be exposed to.



We are ensuring the users will be aware of the hazards and toxicity of the chemicals that they could be exposed to.

## **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.