



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[※], 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 grown on the back of chemical technologies. And based on our social mission and the demands of the market, we have endeavored to harness our long-standing technologies and the latest knowledge each and every day to provide stable supplies of high quality products.

In regard to the environment, we will carry out activities to reduce environmental impact, such as dealing with the decarbonizing society as a measure against global warming, which is an issue for the formation of a sustainable society, and waste reduction. We are implementing these initiatives not merely in response to legal requirements but also to broaden the scope of our corporate business continuity efforts by further streamlining our production processes and reducing wasteful energy use.

We are focusing more than ever on tiered education and follow-up education so that the next generation of workers in the manufacturing and technology departments will be able to maintain safe operations as we expand our business globally. In regard to health and hygiene, we have been focusing on health management in recent years based on the belief that each employee is a valuable asset to the company.

Also, to satisfy all of our stakeholders, we continue to implement Responsible Care activities as well as product quality maintenance and improvement.

Nippon Kayaku Group Responsible Care

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 Nippon Kayaku Group Responsible Care Policy since fiscal 2019 has been particularly formulated with "de-carbonization" in mind.

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/KYK (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-1400 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

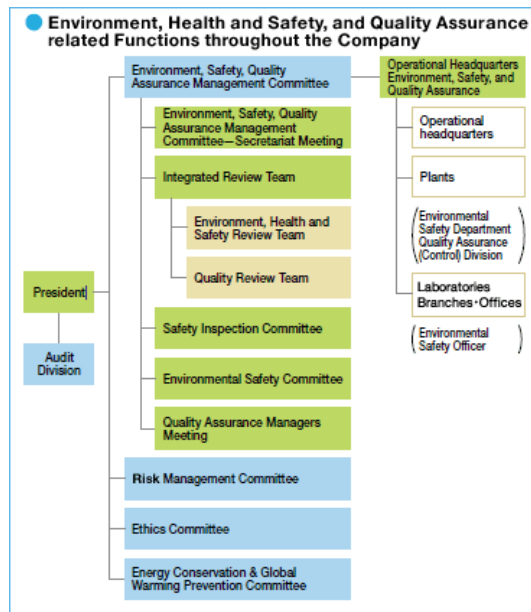
- Use stress checks and other group analytics to find out which of our workplaces have high-stress working environments and be sure to conduct follow-ups.
- Set numerical goals for the rate of participation in health management activities and the rate of specific-health-guidance implementation at each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

● 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.	●
MicroGhem Corp.	●
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[※] 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[※]
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

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 Quality Assurance Division in February 2017 in order to reinforce quality management and the quality assurance system annually. Under this organization, it also established the Quality Assurance Department and Chemical Management Department (formerly the Chemical Management Office).

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.

From now on in fiscal 2017, we will continue to comply with Europe's REACH^{※1} and CLP^{※2}, and continue to positively promote the response to the new chemicals legislation and legal reform around the world.

- ※1 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): An EU regulation for registering, evaluating, approving and restricting chemical substances.
- ※2 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^{※1}, companies are now required to provide SDS^{※2} 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.

- ※1 GHS: Globally Harmonized System of Classification and Labeling of Chemicals
- ※2 SDS: Safety Data Sheet.



Sample GHS-compliant label

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.