



Health and Safety, and Quality Assurance Initiatives

The Nippon Kayaku Group engages in a wide range of health, safety, and quality assurance activities.

We conduct a safety screening whenever we institute new work flows or changing facilities and existing work flows, in order to prevent accidents, injuries or environmental accidents from happening. As part of our efforts, we also conduct risk assessments to ascertain inherent risk factors.

We have also created a database of troubles we have experienced in terms of our environmental, safety, and quality assurance initiatives that is used across all of our business sites. Central integrated environment, health and safety reviews and central integrated quality reviews are conducted at all of its sites and certain Group companies including five overseas plants.

Health and Safety Initiatives and Results

The Nippon Kayaku Group takes a systematic approach to eliminating accidents and injuries at its business sites. As a result of our efforts, in fiscal 2014 there were a total of two no-lost worktime accidents, one lost worktime accidents and one non-injury workplace accident.

The Nippon Kayaku Group takes a systematic approach to eliminating accidents and injuries at its business sites. As a result of our efforts, in fiscal 2014 there were total numbers of six no-lost worktime accidents, one lost worktime accident and one workplace accident with no injury.

In terms of traffic safety, there were 49 traffic accidents involving company-owned vehicles or employees during the commute, representing the accident rate of 12.7% which increase by 0.9% compared to fiscal 2013. And the number of traffic accidents continues to remain above the level seen in fiscal 2010 and before. As a result, we will continue with safe driving reviews as well as assure safer driving habits by combining these reviews with a driving aptitude test approved by the National Police Agency.

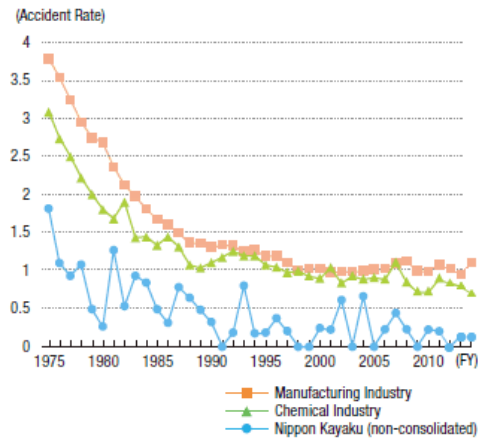
We are also working to share safety awareness across different workplaces by distributing work flow checklists to help eliminate shortcuts or omissions, having employees issue a safety declaration to prevent shortcuts and omissions, as well as displaying this safety declaration clearly in each workplace.

Further in 2014(calendar year) our Group companies including overseas plants there were total numbers of eight no-lost worktime accidents, ten lost worktime accidents and eight workplace accidents with no injury.

● Fiscal 2014 Safety Targets and Performance

Items	Target	Actual
Major Injury / Accidents	0	0
Serious environmental accidents	0	0
Lost worktime accidents	0	1 case
Accidents not accompanied by lost worktime	Rate of lost worktime accidents ¹ of under 1	1.19
	Less than 5 cases	6 cases
Work and commute-related automobile collisions	Less than 4%	12.7 %
	Less than 15 cases	49 cases
Non-injury workplace accidents	0	1 case

● Rate of Lost Worktime Accidents



*1 Frequency rate of lost worktime accidents: It expressed in terms of numbers of deaths & injuries in industrial accidents per 1 million work-hours in the aggregate.

Initiatives to Enhance Quality Assurance Functions

In order to guarantee stable quality, we must carry out daily quality control activities with certainty and continually improve quality control techniques. In our plants we utilize quality control methods such as control charts, conduct quality patrols, carry out QYT* activities, carefully manage changes and modifications, and implement various improvement activities. We also provide various training opportunities to employees in order to improve and promote the use of quality control techniques.

If a problem or deficiency is found at a plant, conventionally we have worked to identify the cause through Why-Why analysis or 4M analysis, but in fiscal 2014 we promoted the greater use of Why-Why analysis in the workplace in order to bolster the capabilities of each workplace. We set up a Why-Why analysis promotion team comprising members from six of our plants located in Japan to create our own unique Why-Why analysis manual. Why-Why analysis is now being carried out at workplaces using this manual.

* QYT: Quality hazard detection training

Occupational Health and Safety as well as Quality Assurance Initiatives

1. Safety and Quality Assurance Activities at Work Sites

We are undertaking a wide range of safety and quality assurance activities. We are also compiling databases on environmental, safety, and quality issues to be used across our business sites.

Safety Activities	Quality Assurance Activities
<ul style="list-style-type: none"> ◦ Risk Assessment ◦ 5S Activity*2 ◦ Hiyari Hatto Activity ◦ KYT Activity ◦ TPM Activity*3 	<ul style="list-style-type: none"> ◦ Quality Risk Assessment ◦ Quality Patrol ◦ Trend Management (Visualization) ◦ Campaign to Prevent the Reoccurrence of Quality Problem ◦ Quality Technology Training

*2 5S Activity: An acronym of five Japanese words phonetically starting with the letter "S".

*3 Total Productive Maintenance (TPM): Activities that maintain equipment and facilities in good working order to ensure safety and maintain productivity.

2. Conducting Safety Assessments (Risk assessment, understanding potential risk factors)

Each of our business sites performs safety reviews for new processes and facilities and whenever changes are made to existing processes and facilities. And we implements "Risk Assessments" in order to prevent business sites accidents, injuries, environmental accidents, complaints and quality issues. Risk factors in chemical reactions are analyzed primarily based on HAZOP.*4

*4 HAZOP: Hazard and Operability Study. A safety evaluation methodology used at chemical plants. Potential hazards associated with chemical reactions can be comprehensively extracted for evaluation.

3. Elimination of Shortcuts and Omissions

Accidents that have occurred within the Nippon Kayaku Group in recent years have tended to result from shortcuts or omissions. As a result, the

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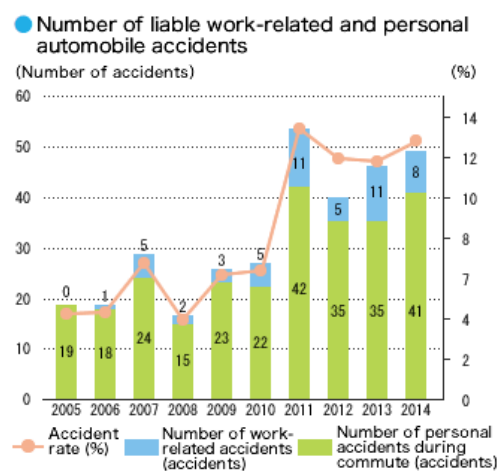
4. Traffic Safety Initiatives

Many Nippon Kayaku Group employees drive a car as part of their work duties or to commute to work. We perform safe driving reviews using a camera-equipped drive recorder *5. And for new MR (Medical Representatives) we perform safe driving leading using "Kuruma-i" *6 which immediately sends E-mail to their superior officer when he drove dangerously, and using the driving aptitude test approved by the National Police Agency *7. Our ratio of liable accidents is half of the average for the Japan Pharmaceutical Manufacturers Association. In fiscal 2014, this accident rate of 12.7% which increase by 0.9% compared to fiscal 2013. And the number of traffic accidents continues to remain above the level seen in fiscal 2010 and before. We will continue with our safe driving reviews and work toward reducing the number of traffic accidents.

*5 Camera-equipped drive recorder: A recorder that can analyze bad driving habits, such as sudden acceleration, sudden braking, and sudden turns using sensors for front/back and right/left acceleration, gyrocompass and GPS system.

*6 Kuruma-i: A system that uses sensors positioned throughout the vehicle to measure acceleration and local (GPS) to detect sudden acceleration, sudden breaking, and sudden turns and immediately notify the driver's supervisor by email.

*7 Driving aptitude test approved by the National Police Agency: An exam that measures the aptitude of driving based on seven written questions covering 11 topics, including decision making skills, ability to prevent collisions, and mental stability test.



*Fiscal 2012 represents 10 months of data due to a change in the fiscal term.

5. Promoting Health Management

Our employees undergo regular health checkups as well as special physical examinations because chemical substances are regularly handled on the job. Employees meet with an industrial physician following their regular health checkup to receive guidance and instructions on their health management and awareness. We also manage a database of information on the hazardous properties of chemical substances and utilize this information to prevent work related illnesses.

Mental Health Initiatives

To balance improvements in operational productivity with the creation of added value, employees need to have workplaces where they can thrive and also be in good mental and physical health.

The President of Nippon Kayaku issued a Mental Health Declaration in 2005 and since then we have provided thorough guidance to managers on the subject. Mental health care requires that all employees have the correct knowledge and understanding to ensure they can prevent or detect mental health issues at an early stage. We focus the greatest efforts on mental health issue prevention. After rolling out our mental health care program, we invited a speaker from our contract EAP to lead a mental health care training program mandatory for all employees to take part in at least once that was set up on four occasions – in fiscal 2005, between fiscal 2006 and 2008, between fiscal 2009 and 2011 and between fiscal 2012 and 2014. We formulated a new three-year plan in fiscal 2015 and employees are planning to take part in this training.

We have also created the Return to Work Program for employees that were forced to take a leave of absence due to a mental health issue. In this manner, workplace supervisors (the company), industrial physicians, and EAP form a trinity of measures for ensuring employees can return to work smoothly with a focus on preventing relapses.

In addition, about the obligation of the "Stress Check System" of Occupational Safety and Health Act, which is scheduled to implement on December 1, 2015, we have readied in order to establish the "Stress Check System"

6. Deployment of AEDs

Driving aptitude test approved by the National Police Agency: A driving aptitude test that measures driving ability based on responses to seven questions covering 11 items including situational awareness, collision prevention ability, and mental stability, among others.

Wuxi Advanced Kayaku Chemical Co., Ltd. Recognized with an award of excellence from a panel for the sharing of knowledge about preventing occupational illnesses

Wuxi Advanced Kayaku Chemical Co., Ltd. (WAC) is located in Wuxi, China and manufactures and markets dyes. In January 2015, WAC received an excellence award from a nationwide panel on the prevention of occupational illnesses organized by the State Administration of Work Safety and All-China Federation of Trade Unions. Of the 102,293 organizations employing some 8 million workers nationwide, this panel selected just 350 organizations, with most of these being the labor and safety departments of regional governments. WAC was one of two organizations in Wuxi to win the award and the only private sector company.

The panel's screening was carried out based on a review of the reports of implementation status of important aspects of occupational illness prevention designated by the government as well as the nature of employee responses received in writing and over the Internet with regard to questions prepared by the government for testing their understanding of occupational illness prevention.

WAC's activities involve identifying and reporting occupational illness risk factors on a daily basis, reporting on the actual conditions of environmental measurements, bolstering prevention through the rationalization of equipment, reporting to employees about each individual danger found, and reinforcing management of irritants. WAC also provides employees with health checkups. These efforts were viewed highly by the panel.

WAC is committed to continuing with its improvement activities, under the ultimate goal of becoming a company that is more environmentally considerate and employee-friendly.



Receiving the excellence award from the Panel Committee

Lectures on health check-ups at KAYAKU CHEMICAL (WUXI) Co. Ltd.

KAYAKU CHEMICAL (WUXI) CO., LTD. (KCW) in China manufactures and markets synthetic resins and also researches and develops technology services.

KCW, as part of "employee health month," under the broader theme of environmental and safety month, organized physical examinations for all employees. Until this year, employees were simply given a physical exam, but starting in fiscal 2014 KCW asked specialist physicians from the medical institution that administered the health exams to visit the office again after the results of the exams were released. Employees were briefed on each item from the physical exam by specialist physicians who also sat down and explained the results of the testing to employees. Afterwards, specialist physicians were available to answer employee questions and provide advice. This enabled KCW to encourage employees to make improvements in their daily lives and focus on health issues as well. These efforts will be continued in the future.



From JCIA (Japan Chemical Industry Association) Pharmaceutical Research Laboratories honored with Safety Award First Prize Asa Plant honored with Responsible Care Award

On May 29, 2014, the Japan Chemical Industry Association held an awards ceremony at its annual meeting where Nippon Kayaku's Pharmaceutical Research Laboratories was honored with Safety Award First Prize. Later, the Pharmaceutical Research Laboratories participated in a safety symposium held on June 23 where it presented its best practices and it also took part in a related panel discussion. The Pharmaceutical Research Laboratories was selected for this honor because of its top-down approach to safety awareness where clear instructions are given from the director to team leads and each team thinks up its own safety measures. Additionally, other reasons included its many ongoing safety activities as well as its approaches to unique laboratory oriented activities, such as training on related laws and standardized approaches to laboratory testing, safety measures for technology transfers, and operation of a database on test reagents.

During the same awards ceremony, the Asa Plant was recognized with Responsible Care Award for Effort (RC Award *8). The Asa Plant was selected for this honor because of its safety and disaster preparedness measures, including activities to detect safety-related issues as well as its systems in place to prevent flood damage and monitor for foul odors.



*8 The RC Award is presented to individuals or groups that contribute to the promotion and enhancement of Responsible Care activities.

Kashima Plant Organized lecture at the Ibaraki Prefecture Industry Health and Safety Conference

On October 3, 2014, the Nippon Kayaku Kashima Plant presented a special lecture on its health and safety activities at the fiscal 2014 Ibaraki Prefecture Industry Health and Safety Conference. The Kashima Plant has never had an injury-related accident since it first began operations back in 1982, representing a span of more than 11,500 days. In fiscal 2011, the plant was honored with an excellence award from the Minister of Health, Labour and Welfare for its daily commitment to health and safety activities. During this lecture, staff from the plant talked about its approach to "safety first" in plant operations that seamlessly combines new safety activities with its long-standing safety culture passed down since its opening.



Environment, Health and Safety Checks and Quality Checks Established by the Nippon Kayaku Group and its Labor Union

The Nippon Kayaku Group has carried out environment, health, safety and quality (integrated) checks at each of

its workplaces, business sites, and certain Group companies according to an annual schedule. These checks also involve member of Nippon Kayaku's labor union who take part in each check.

The checks for the environment, health and safety policy, targets, plans and activity results of sites and Group companies are ascertained through meetings, documents and frontline tours. Issues are also identified from labor union's perspective in an effort to improve the overall level of environment, health and safety measures. In this manner, activities have been carried out together with the labor union based on mutual understanding. By having labor union representatives take part in checks, they are able to actively support initiatives for safety and the workplace environment of employees.



Initiatives for Health and Safety with the Labor Union

Nippon Kayaku's labor union conducts health and safety training every year called the level up seminar in which participants are solicited from each labor union branch. In fiscal 2014, the training included a hands-on safety experience outdoors and lectures titled "learning safety measures from past accidents" and "strengthening one's ability to take notice of things" sponsored by the Environmental Protection & Safety Division. Efforts were also made to raise safety awareness by sharing information about the health and safety measures of each branch (workplace) and by holding group discussions.



Responding to Accidents and Disasters

1. Fire response

Each business location is equipped with a fire truck, fire hydrant, and fire extinguisher for chemical substances in preparation for potential fire hazards. In addition to holding on-site training, employees also participate in local fire fighting competitions at which they have achieved strong results.

2. Natural disaster response

As a precaution for earthquakes and other natural disasters at each workplace, we have compiled and distribute the Employee's Handbook of Disaster (Earthquake) Prevention to each and every employee. This handbook contains instructions on emergency response when an earthquake occurs, how to make contact and confirm one's safety, and alternative methods to reach home when public transportation is unavailable.

Employee safety during a disaster is monitored by a safety reporting and communication system that uses email. As an earthquake strikes, the disaster response headquarters will send out an instruction by email to all employees. Employees can reply to the email by a simple touch of a button, which allows data to be collected. This system will be used to confirm employee safety during an earthquake of a seismic intensity of 6 or higher in Japan.

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 Chemical Management Office, which collects the latest information on laws and regulations around the world, instructs related departments with their response and provides training on general chemical substance related laws. Through these efforts, the Chemical Management Office is striving to maintain and improve compliance as it relates to chemical substances.

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.

In fiscal 2015, we will continue to comply with Europe's REACH*9 and CLP*10, and continue to positively promote the response to the new chemicals legislation and legal reform around the world.

*9 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): An EU regulation for registering, evaluating, approving and restricting chemical substances.

*10 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 *11, companies are now required to provide SDS *12 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.

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

*12 SDS: Safety Data Sheet.



Sample GHS-compliant label