

Management of Chemical Substances

Policy and Basic Approach

Nippon Kayaku has mobilized an organizational response to recent changes in the chemical substance management environment, promoting activities based on its [Responsible Care Policy](#) to fulfil its responsibilities as a chemical manufacturer. We have been particularly focused on preparing self-directed chemical substance management systems on every business site in response to the revised Occupational Safety and Health Act of FY2024.

System

> [System for Promoting Responsible Care](#)

Indicators

Substance Reduction based on the Pollutant Release and Transfer Register (PRTR)

FY2023 saw the Nippon Kayaku Group deal with chemical substances listed in the Act of the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement. To limit effects on the external environment, we are promoting measures such as the installation of treatment devices and the conversion of raw materials.

Indicator		Covering	Unit	2019	2020	2021	2022	2023
Emissions of PRTR substances	Atmosphere	Non-consolidated	tons	18.9	16.8	25.2	38.7	32.9
	Water bodies	Non-consolidated	tons	13.3	9.1	14.7	51.4	75.0
	Soil	Non-consolidated	tons	0	0	0	0	0
	Total*	Non-consolidated	tons	32.2	25.9	39.9	90.1	107.9

* Value for each item is rounded off, which often results in an inconsistency between the total value indicated and the aggregate of all the relevant items.

Initiatives

Responses to Laws and the Various Standards

Nippon Kayaku, under its sustainable management system and via its Environment, Safety and Quality Management Committee, is proceeding with desirable initiatives on chemical management matters and the specific action plans based upon them.

◆ Responses to Domestic Chemical Laws and Regulations

Bringing a new product to market requires the filing of numerous application, registration and report documents in line with each country's regulations. Inside Japan, the Chemical Control Act^{*1} and Safety and Health Act^{*2} demand that we file new chemical substance applications and, particularly in the case of the former, numerous other documents. Our responses to the revised Chemical Management Act^{*3} taking effect in 2023, and the revised Industrial Safety and Health Act taking effect in 2024, involve enhancing our systems for appropriate emissions management and self-directed chemical substance management.

With the worldwide fixing and revision of chemical laws and regulations progressing apace, we are utilizing a searchable database of all laws and regulations in Japan, Europe and America to gain up-to-date information on regulatory trends and amendments, and thereby mount appropriate responses.

*1 Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances

*2 Occupation Safety and Health Act

*3 Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement

◆ Responses to GHS, and SDS for all products

The worldwide introduction of GHS^{*} has spawned demands for Safety Data Sheets (SDS) conforming to local laws and regulations to be issued in the language of the country in question, and for product labels to be attached. Nippon Kayaku initiatives have included appropriately responding to the revised Japanese Industrial Standard (JIS) of 2019 by altering SDS and labels accordingly.

The Fine Chemicals Business Unit operates the "3E generate" SDS-creation system equipped with abundant translations, each country's legal and regulatory data, substance properties and toxicity data, to issue SDS compliant with both local laws and regulations and attach relevant GHS product labels.

* GHS: Globally Harmonized System of Classification and Labeling of Chemicals (A globally harmonized system for the classifying and labeling of chemicals)

◆ Responses to Overseas Laws and Regulations on Exported Chemicals

The EU's REACH^{*} regulations were implemented in June 2007. Drawing no distinction between existing and new chemical substances, these regulations made it compulsory to provide safety test data when registering chemicals (including chemical products containing chemical compounds) either manufactured or exported into the European region in annual volumes of one ton or more. Their implementation has led to a toughening of chemical substance registration regulations in numerous countries, causing us to forever confirm the latest regulatory trends and respond without omissions.

In our Fine Chemicals Business Unit, our efforts to respond to domestic and international chemical substance registration systems; grasp each country's trends regarding chemical laws, draft relevant proposals, inform relevant departments and offer guidance on relevant responses; and manage product SDS and labels as part of chemical quality control are coordinated and supported by our Chemical Quality Control Division.

* REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

◆ Centralized Management of Chemical Substance Information

With the aim of boosting appropriate use of chemical substances, Nippon Kayaku centrally manages the information for chemical substances contained in all its products and raw materials via its own internal database.

We are making efforts to convey information to customers on compliance, product toxicity and safe product handling through conducting database management of information on the composition of chemicals and products we handle, hazard statements, and the relevant laws and regulations both inside and outside Japan.

We are also working to grasp information related to chemical substances present in raw materials by demanding that our raw material suppliers use the latest safety data sheets and chemSHERPA processes, and present us with due diligence reports.

The future will see us continue responding to tougher chemical substance regulations and move ahead with efforts to build a yet stronger chemical substance information management system.

*chemSHERPA: Chemical information SHaring and Exchange under Reporting PArtnership in supply chain

A scheme for conveying information on chemical substances contained in products across the supply chain.

◆ Risk-reduction Measures for the Manufacture and Handling of Chemical Substances

Against the backdrop of compulsory risk assessments for business sites involved in the manufacture and handling of chemical substances introduced under the revised Occupational Safety and Health Act of 2016, Nippon Kayaku has, through use of its own independently-constructed database, implemented both risk assessments and risk-reduction measures relating to all new work or work changes which involve the handling of chemical and toxic substances specified within the Act. In response to further revisions to this Act which have expanded the list of substances to be risk assessed from 2024, we have improved our database, adjusted our risk assessments to conform to those revisions, centralized controls, and promoted companywide risk management.

We have also put up GHS pictorial guides in each area where chemicals are handled, so that handlers can recognize the hazardous nature of chemicals giving rise to exposure concerns.



As the picture shows, our displays allow workers to recognize the hazardous nature of chemicals that give rise to exposure concerns.

◆ Education

We provide education programs at every plant, and for each workforce layer, aimed at improving safety consciousness. We are currently enriching the education contents on chemical laws and regulations, including the so-called “Three SDS Laws”: The Chemical Management Act, The Safety and Health Act, and the Poisonous Substances Act.

◆ Industrial and International Initiatives

The Nippon Kayaku Group belongs to the Japan Chemical Industry Association and has signed up to Long-range Research Initiatives (LRI) since 1999. In addition to shouldering part of the research funding burden, we also sit on the committee.

The LRI proceeds under the umbrella of the Japanese, American and European chemical industries (The Japan Chemical Industry Association, The American Chemistry Council, and the European Chemistry Industry Council). A voluntary activity conducted by the International Council of Chemical Associations (ICCA), it focuses on increasing the accuracy of risk assessments for internal secretion and endocrine disrupting action, neurotoxicity, chemical carcinogenesis and immunotoxicity, and supports long-term research of the effects of chemical substances on the environment and people's health.

> [LRI](#)

Initiatives to Reduce Chemicals of Concern

So as to appropriately respond to accelerated movements towards tightening regulations in countries across the globe, Nippon Kayaku has determined the chemicals to be managed under the laws and regulations pertaining to each business, and carries out chemical substance management. Right from the raw materials and parts procurement stage do we work to reduce reliance on Chemicals of Concern to minimize the risks to individual health and the environment.

◆ Mobility & Imaging Business Unit

Our Safety Systems Business Unit makes use of the GADSL* to clarify the chemical substances that must either be banned from products or whose presence must at least be grasped. In addition to strictly managing Substances of Concern, Safety Systems is working to reduce use of such substances at every step of the product process: development, planning, procurement, production and distribution. The GADSL is a global-standard list of Substances of Concern compiled by leading automobile makers, parts makers and chemical manufacturers in Japan, Europe and the USA. It divides Substances of Concern into various categories such as: Prohibited (P), Declarable or Prohibited (D/P) and Declarable (D).

* Global Automotive Declarable Substance List

◆ Fine Chemicals Business Unit

In line with chemical substance management regulations, our Fine Chemicals Business Unit defines substances posing environmental and health hazards to be managed in Nippon Kayaku products as “Environmental Impact Substances.” These are further divided into the categories of “Prohibited Substances” and “Controlled Substances”, and managed accordingly. “Prohibited Substances” constitute those chiefly comprised of chemicals regulated under the RoHS Directive (see below) or constituting Class 1 Specified Chemicals in the Chemical Substances Control Law, whose use, manufacture and sale we have decided, in principle, to ban. “Controlled Substances” refer to those included in the REACH Annex XIV (Authorization List), REACH Annex XVII (Restricted Substances) and REACH SVHC (Candidate List of substances of very high concern for Authorization). Along with minimizing their use, we assess the risks of their appearance in a product and set up appropriate management practices based on domestic and international laws and regulations, and customer demands.

RoHS Directive

The RoHS Directive (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) is an EU law implemented in July 2006 which proscribes the inclusion of hazardous substances in electrical and electronic devices. In order to lighten environmental burdens, Nippon Kayaku is working to reduce use of the following RoHS-designated hazardous substances: cadmium, mercury, lead, hexavalent chromium, PBB (polybrominated biphenyl), PBDE (polybrominated diphenyl ethers), and 4 phthalic acid ester substances: DEHP (Di(2-ethylhexyl) phthalate), BBP (benzyl butyl phthalate), DBP (dibutyl phthalate) and DIBP (diisobutyl phthalate).