

Sustainability Book

2025

Possibility of chemistry

Denka

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Denka

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Sustainability Book
2025

■ Editorial Policy

The Sustainability Book provides comprehensive information on ESG activities and detailed data that are not included in the Denka Report (Integrated Report).

■ Coverage

This report covers FY2024 (Saturday, April 1, 2024 through Sunday, March 31, 2025) in principle, but also includes additional information on some initiatives undertaken subsequent to the FY2025 year-end. The report also presents data on performance indicators (numerical) from the past several fiscal years.

■ Date of publication

January 1, 2026

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Make the World a Better Place as Specialists in Chemistry.

Representative Director, President
Ikuo Ishida



We would like to express our sincere gratitude to all stakeholders for your continued support.

In recent years, amid a high level of uncertainty in the international situation, there is increasing emphasis on the solving of global social issues by companies. At the same time, ESG investment is also increasing in financial markets, and companies are being asked to respond in a wide variety of ways towards the realization of a sustainable society.

The Denka Group has established the Denka Group ESG Basic Policy as a basic policy for addressing sustainability issues. In addition, in our management plan Mission 2030, which started in fiscal year 2023, we are promoting three growth strategies—business value creation, human resource value creation, and management value creation—linked to our materiality (important management issues), and are working to pursue sustainability and strengthen our management base in our business activities.

On the other hand, in the case of the SDGs, we have clarified the connection between the 17 Goals of the SDGs and the Targets (achievement criteria) in the "contribution to a sustainable society" that we aim to achieve through the attainment of the Mission 2030 goals.

Particularly for us in the chemical industry, our efforts toward achieving carbon neutrality by 2050 are not merely a fulfillment of our social responsibilities; they are indispensable for continuing our business into the future.

As part of these efforts, in 2025, we will formulate our Denka GX Roadmap in response to CO₂ emissions trading becoming mandatory with the GX League from 2026, and steadily implement this roadmap.

Furthermore, as part of the implementation of the important policy of creating human resource value, "Promotion of Diversity, Equity & Inclusion," we are working to create a workplace with a high level of psychological safety through the holding of town hall meetings and other initiatives. In addition, through panel discussions with female managers and support for employees raising children together with working spouses, we will create an environment in which each employee with diverse ways of thinking can demonstrate their abilities and foster a corporate culture that can create major innovations.

Denka will continue to contribute to people's daily lives and society through our world-class chemistry under our Purpose of "Making the world a better place as specialists in chemistry." We sincerely appreciate your continued understanding and support.

President and CEO:

Ikuo Ishida

The Denka Group ESG Basic Policy

Established on August 27, 2018
Revised on November 8, 2021
Revised on April 1, 2023
Revised on July 14, 2025

The Denka Group recognizes that sustainability issues (medium- to long-term sustainability) including consideration for global environmental issues such as climate change, respect for human rights, consideration for employee health and working environments and fair and appropriate treatment, compliance with relevant laws and regulations, fair and appropriate transactions with customers and business partners, and crisis management in the event of natural disasters are important issues that will determine the Group's continued existence. Accordingly, the Denka Group will actively and proactively address these issues.

Furthermore, from the medium- to long-term perspective of enhancing corporate value, we will work together with our business partners and everyone in our supply chain to address the United Nations Sustainable Development Goals (SDGs) toward the realization of a sustainable society and the solving of common issues facing humanity. Through our provision of innovations and solutions as a chemistry-based monozukuri company, we aim to be a company that contributes to society.

Under the vision (core values, purpose, and mission) that expresses Denka's future image and forms the basis of activities for all employees, the Denka Group has established The Denka Group ESG Basic Policy as our basic policy for ESG (environment, society, and governance) in business activities across the Group. We will strive to comply with each principle and enhance corporate value through the establishment of effective corporate governance based on high ethical standards.

This Basic Policy was formulated with reference to the "Charter of Corporate Behavior" of the Japan Business Federation (Keidanren), to which the Company is a member.

In order to respond appropriately to changes in social conditions and diversifying social issues, the Company will conduct timely and appropriate reviews of the contents of this Policy.

* Category descriptions: E (Environment), S (Social), G (Governance)

E	Promotion of measures for climate change	The Denka Group is striving to develop and introduce innovative technologies such as expanding the use of clean energy, reviewing our business portfolio, and recovering and utilizing CO ₂ . By doing so, we aim to reduce greenhouse gas emissions by 60% from the 2013 level by fiscal year 2030 and achieve net zero carbon neutrality by 2050. Through these efforts, we will not only enhance our corporate growth potential and competitiveness, but also contribute to the realization of Green Transformation (GX) across the entire economic and social spectrum.
E	Reduction of environmental impact and conservation and protection of biodiversity	The Denka Group recognizes that reducing environmental impact is an essential requirement for its existence and activities as a corporate entity. Based on this recognition, the Denka Group promotes the cyclical and efficient use of resources in its business activities, reduces environmental impact on air, water, and soil, and promotes the protection of nature and biodiversity as well as the conservation and reduction of limited water resources.
E/S	Sustainable economic growth and solving social issues	The Denka Group provides products, services, and solutions that contribute to sustainable economic growth and the resolution of social issues through innovation. To reduce environmental impact across the value chain, we will develop environmentally friendly products and technologies and actively promote the establishment of a circular economy.
S	Respect for Human Rights	The Denka Group respects the human rights of all people involved in the Group's business, including the abolition of forced labor, effective elimination of child labor, prohibition of discrimination and elimination of harassment in employment and the workplace, and recognition of the freedom of association and the right to collective bargaining. The Denka Group also conducts appropriate human rights due diligence and strives to raise awareness of human rights, thereby fulfilling its corporate responsibilities.
S/G	Promotion of diversity, equity & inclusion (DE&I), human resource development, and work style reform	The Denka Group recognizes the diversity and autonomy of all people working in the Group, ensures fairness, understands and utilizes their individuality, and fosters the development of individual capabilities and the transmission of unique technologies. Furthermore, the Denka Group will establish environments that contribute to improving engagement, support diverse ways of working for each individual, and promote work style reforms that achieve a balance between work and life.
S	Creating a safe and easy-to-work workplace	The Denka Group places workplace health and safety and facility security and disaster prevention as its top priority in all production activities and strives to create a workplace environment that is easy to work in and comfortable with consideration for health, free from serious accidents and disasters.
S	Participation in and contribution to the formation of good local communities and building of trust	The Denka Group actively participates in the formation of better local communities and contributes to their development as a good corporate citizen, thereby fostering relationships of trust with local communities.

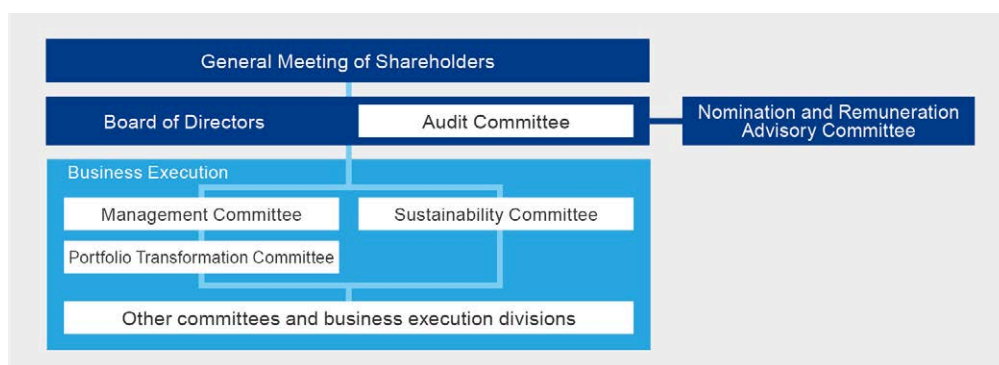
S	Building trust with customers	The Denka Group strives to provide safe and high-quality products while building trust with all stakeholders through sincere and transparent communication to ensure that all customers are satisfied with our products, services, and solutions.
G	Fair corporate activities	The Denka Group complies with the laws and regulations of each country and region in which it conducts business, and engages in fair and free competition, appropriate transactions, consideration for the global environment, responsible procurement that does not involve human rights violations such as child labor and forced labor, and maintains sound relationships with political and governmental authorities. In its supply chain, the Denka Group is working to strengthen mutually beneficial relationships with its business partners based on its Partnership Building Declaration.
G	Constructive dialogue with stakeholders and information disclosure	The Denka Group actively, effectively, and fairly discloses financial and non-financial information, ensures the reliability of such information, and strives to engage in constructive dialogue with a wide range of stakeholders to enhance corporate value.
G	Risk Management	The Denka Group promotes strategic risk management, including the understanding of risks affecting corporate activities and the strengthening of responses to important risks. Furthermore, the Denka Group will implement organized crisis management in response to serious threats, including the actions of anti-social forces, terrorism, cyber-attacks, and natural disasters.
G	Protecting, managing, and utilizing tangible and intangible assets	The Denka Group recognizes that tangible assets and intangible assets such as confidential information and intellectual property are sources of its competitive strength, and is committed to their appropriate protection and utilization. The Denka Group appropriately protects and manages personal information, respects the legitimate intellectual property of third parties, and promotes digital transformation through the utilization of data.
G	Role of the President and CEO and thorough implementation of this Basic Policy	The Denka Group's management will ensure that this Basic Policy is communicated throughout the Group and will strive to enhance corporate value by establishing an effective Group governance system. In the event that a situation arises in which trust from society is lost in contravention of this Basic Policy, the Group management will take the initiative to resolve the issue, identify the cause, and prevent recurrence, thereby fulfilling its responsibility. The Denka Group also requests that supply chain stakeholders act in accordance with the spirit of this Basic Policy.

Denka Group ESG Promotion Structure

The Sustainability Committee (chaired by the President) has been established within the Executive Division to supervise the proactive and active efforts of the Executive Division to address issues related to sustainability (medium- to long-term sustainability). The committee meets five times a year with the President serving as chairperson, the Executive Officer in charge of the Corporate Planning Department as vice chairperson, and the Executive Officer in charge of the Management Department as a committee member, with Directors, excluding committee members, present as observers.

The Committee deliberates and makes recommendations on sustainability initiatives implemented by the Executive Division and the achievement of non-financial target KPIs (Key Performance Indicators). In implementing these deliberations and recommendations, from the perspective of ensuring transparency and fairness in corporate decision-making and the realization of effective corporate governance, the Committee will consider the impact of risks and profit opportunities on our business activities, taking into account the level of consistency between our efforts to address sustainability issues and our management strategies and issues. The results of these deliberations will be reported to the Board of Directors.

In addition, The Portfolio Transformation Committee (chaired by the President) was established to promote a change to our business portfolio based on three elements: specialty, megatrends, and sustainability. By incorporating such indicators as CO₂ emissions and labor productivity, we aim to achieve our target of 100% three-star businesses by 2030.



- Management Department: Reports activity status and progress of non-financial KPIs twice a year
- Business divisions: Report response to risks and opportunities regarding sustainability issues every March

Contributions to the SDGs

Denka's Mission Statement, "Taking on the challenge of expanding the possibilities of chemistry to create new value and contribute to the sustainable development of society," is in line with the spirit and purpose of the United Nations SDGs aimed at promoting social development.

By using the SDGs as a compass, we will create unique product technologies and solutions to contribute to the development of the world.



Product and technology development for global warming mitigation

Securing a stable and inexpensive energy supply is essential to operate the electric furnaces and chemical plants that manufacture chemical products. Over our more than 100-year history, we have experienced many challenges that threatened the survival of our business.

To this end, Denka is working to increase renewable energy generation and conserve energy at its plants, while also contributing to the prevention of global warming through the provision of products and services.

Around the world, research is underway into the use of CO₂ to synthesize organic compounds, as well as the active use of CO₂ for photosynthesis in microalgae and for promoting photosynthesis in crops. By drawing on this research, we aim to establish Denka's unique CCU (Carbon Capture & Utilization) technology, which will enable us to utilize CO₂ in products without emitting it into the atmosphere.

["Thermal conductive materials"]	Used in various devices such as automotive electrical components, digital home appliances, power modules, switched-mode power supplies, LED lights, flat panel displays and solar cells, our products help achieve energy savings and longer product life by providing effective heat control.
["Food packaging materials"]	Pursuing thin-walled and reduced food containers to promote the reduction of plastic usage. Expanding the use of bioplastics
["Phosphor"]	Contributing to the spread of LED and helping promote energy conservation

Resource recycling system for cement plants

At the Denka Omi Plant, we accept waste emitted by society for use as cement raw materials and fuels. Sludge from water supply and sewage systems, debris generated by disasters, construction soil, waste oil, waste plastics, waste tires, and shredder dust, which is the last remaining product of automobile recycling, as well as coal ash, gypsum, and slag, which are by-products of thermal power generation and steelmaking, are all waste products that would otherwise have to be disposed of by landfill. Each of these resources has a different shape and composition, and is not stable, so we pay the utmost attention to safety and quality management, and use advanced management techniques to manufacture cement. Our cement business, which supports environmental conservation and resource recycling in local communities, is an excellent example of a Creating Shared Value (CSV) business, as it improves business profitability while contributing to society.

Company-owned hydroelectric power plants

Denka has been constructing and operating hydroelectric power plants since its establishment in 1915. There are 17 hydroelectric power plants in total around the Omi Plant, including those co-owned by Denka, with a maximum output of approximately 140,000 kW, making it one of the largest private enterprises in Japan. All of these power plants are "inflow-type" hydroelectric power plants, which guide river water to the turbine runner and return it to the river after power generation, making it a power generation method with less burden on the natural environment.

Hydroelectric power not only does not emit greenhouse gases, but is also one of the excellent renewable energy sources with high energy efficiency, making it possible to coexist with nature and generate electricity sustainably.

While cherishing the historical facilities with nearly 100 years of history, such as the Kotakigawa Power Plant, which was established in 1921, we are also renewing facilities to improve power generation efficiency and constructing new hydroelectric power plants. The construction of new hydroelectric power plants is accompanied by great difficulties due to the long construction period and large costs.

With the understanding and cooperation of local communities, we believe that it is our social responsibility to utilize the know-how we have cultivated over many years to expand the use of renewable energy and contribute to social development, taking advantage of national support systems.

Introduction of R&D Examples

① "SNECTON", a low dielectric organic insulating material for electronic substrates compatible with high frequency waves/Polymer Research Department/ICT & Energy

Next-generation communications, characterized by ultra-high speed, multiple simultaneous connections, and low latency, use high-frequency electromagnetic waves. To suppress signal transmission loss associated with the increase in frequency, substrate materials must have a low dielectric constant and low dielectric loss tangent. SNECTON is a thermosetting low dielectric organic insulating material designed using our polymerization technology, and is suitable as a resin material for next-generation communications. We are working on market development focusing on next-generation communication infrastructure applications to contribute to the realization of 5G and 6G.

② Development of SN powder for bearing balls/Ceramics Research Department/ICT & Energy

There is a growing trend overseas to replace conventional iron bearing balls with ceramic ones for rotary systems that generate electricity and power, such as power generation systems using natural energy, including wind power generation and EV motors. Among these, SN, which is more durable, has attracted attention, and we have already developed an SN powder for bearing balls, which has already been proven in heat dissipation substrates.

③ TBM Temporary adhesive for heat resistance/Electronic Materials Research Department/ICT & Energy

Using our long-standing "acrylic material blending technology" and "UV curing agent blending technology" developed for our adhesive business, we have newly developed a liquid UV temporary fixing adhesive, "TBM." We are currently in the process of establishing specifications that support SiC, which will be gradually applied to next-generation power devices.

④ Development of rapid detection kit for Ebola antigen/POCT Development Department/Healthcare

In a joint research with the Hokkaido University Institute for International Collaboration on Zoonosis Control, we have developed a kit for the rapid detection of antigens from Ebola patient blood. The kit has already been approved for use in vitro diagnostics in the Republic of the Congo, where its clinical usefulness has been confirmed in endemic areas. We are also working with the WHO and other relevant organizations to further develop the kit for use with similar viruses, including the Marburg virus.

⑤ Development of rapid antigen test kits for COVID-19/POCT Development Department/Healthcare

In preparation for the simultaneous spread of COVID-19 and influenza viruses, we obtained marketing approval in Japan in June 2021 for a rapid antigen test kit (POCT) that can simultaneously diagnose both viruses using a single device, and have commenced marketing activities. As the leading manufacturer of POCT in Japan, Denka aims to contribute to medical care through the supply of such kits, etc.

⑥ Carbonization mixing agent "LEAF"/Omi Sustainability Promotion Department/Sustainable Living

The carbonization admixture "LEAF" is a special admixture that densifies the structure while absorbing and fixing CO₂ in the air, and has the effect of reducing total CO₂ emissions during mortar and concrete production.

Denka has formed a consortium "CUCO (CARBON UTILIZED CONCRETE)" led by Kajima Corporation, Takenaka Corporation, and Denka, and is promoting the spread of carbon-negative concrete by integrating several CO₂ emission reduction technologies, including "LEAF."

⑦ "Enepis," a new environmental response sheet for the realization of a decarbonized society/Polymer Research Department/Sustainable Living

In collaboration with Denka Polymer, we have developed a new environment-friendly sheet that reduces environmental impact by blending biomass plastics with our proprietary technology. The biomass content of the developed products has been certified by the Japan Organics Recycling Association (biomass components of 10% or more). As a food container, it can be heated up to 130°C in microwave ovens and is lighter than conventional PP with filler (PP-F), which contributes to reducing greenhouse gas emissions.

⑧ Sustainable plastic "PLATIECO"/New Materials Research Department/Sustainable Living

A new environmentally friendly material has been developed containing natural eggshells and polystyrene (PS) resin, a type of plastic. This newly developed product uses a proprietary technology that can create a blend consisting of 50% or more of eggshells, and can be further improved by combining ABS resin and effectively utilizing other natural materials such as cellulose. It has the same durability and moldability as existing PS resins, contributing to the reduction of greenhouse gas emissions and plastic waste.

Participation in initiatives

Signing of the United Nations Global Compact

The Denka Group signed the United Nations Global Compact (hereinafter, UNGC) on June 8, 2023, and was registered as a participating company.

UNGC is the world's largest sustainability initiative aimed at building a sound global society through collaboration between the United Nations and companies/organizations. Companies and organizations that sign the UNGC are expected to support the 10 Principles concerning "human rights," "labor," "environment," and "anti-corruption" proposed by the UNGC and make efforts to realize these principles through their business activities.

In response to issues surrounding sustainability, we established The Denka Group ESG Basic Policy as our basic policy, and are promoting three growth strategies: business value creation, human resource value creation, and management value creation in our management plan, Mission 2030. Through these efforts, we are pursuing sustainability and strengthening our management foundation. By signing the UNGC, we aim to clarify our corporate stance toward realizing a sustainable society and practice the 10 Principles proposed by the UNGC in our business activities.

Support for TCFD (Task Force on Climate-related Financial Disclosures)

The Denka Group expressed its support for the TCFD (Task Force on Climate-related Financial Disclosures) in September 2020 and joined the Consortium.

- › [Regarding the Endorsement of TCFD](#)

Participation as a partner of WIPO GREEN

In July 2022, Denka became a partner of WIPO GREEN, a global platform for environmental technologies operated by the World Intellectual Property Organization (WIPO).

- › [Participation as a partner in WIPO GREEN](#)

Participation in GX League

The GX League is a group of companies that are leading a transformation of the economic and social systems as a whole, including stakeholders, to facilitate an early transition to carbon neutrality. The GX League aims to create new markets through discussions and practices among industry and government. Our company has participated in this initiative since its full-scale launch in April 2023.

- › [Participation in the GX League](#)

Participation in CLOMA (Clean Ocean Material Alliance)

CLOMA (Clean Ocean Material Alliance) is an alliance established in 2019 that aims to accelerate innovation through collaboration among diverse companies to prevent marine pollution caused by plastic waste.

The Denka Group is leveraging its strengths in integrated manufacturing facilities and product development capabilities ranging from synthetic resin materials to polymer processing and molding to actively develop and provide new solutions that promote efficient use of plastics and reduce the burden on the global environment.

Agreement to the Partnership Building Declaration

The "Partnership Building Declaration" is a declaration of the concept of building sustainable relationships in which large and small enterprises can grow together, which was proposed at the "Partnership Building Promotion Council" promoted by the Cabinet Office and the Small and Medium Enterprise Agency in collaboration with relevant economic organizations.

The Denka Group is working to build new mutually beneficial relationships while strengthening partnerships with its business partners.

› [Declaration on Building Partnerships](#)

Environmental Policies

Consideration for the global environment

Denka is addressing global environmental issues based on Responsible Care, an initiative promoted by the global chemical industry. As a chemical manufacturer, Denka exercises strict control over environmental impact and strives to develop innovative technologies to conserve resources and energy.

Basic Policy

In a situation where awareness of environmental issues such as global warming has been raised as the most important issue threatening the existence of humanity and ecosystems, the pursuit of sustainability is positioned as a prerequisite for fulfilling social responsibilities and continuing business, as well as an opportunity for improving product competitiveness and creating new business opportunities.

Based on this recognition, the Company will raise the environmental mind of all employees, create environmental value through decarbonization, strengthen product competitiveness, and gain satisfaction and trust from stakeholders.

2025 Activity Policy

In accordance with our Management Plan "Mission 2030", in fiscal year 2025, we will focus on (1) GX human resource development, (2) process innovation, energy conservation promotion and profitability, (3) proper response to the needs of information disclosure, (4) strengthening the supply chain, and (5) effective use of resources and promotion of reduction of hazardous substances, etc.

Support for the Responsible Care World Charter (2014 version)

On December 9, 2014, Denka became a signatory to the Responsible Care Global Charter (2014 version) proposed by the International Council of Chemical Associations (ICCA) and declared its support for and implementation of the principles of Responsible Care together with chemical manufacturers around the world.

Responsible Care (RC) Activities Policy (Environment related)

Under the "Responsible Care Global Charter," we will promote RC activities covering all processes from raw materials to manufacturing, storage, logistics, use, and disposal to fulfill our social responsibilities, striving to ensure compliance, prevent environmental pollution, and contribute to environmental protection toward the realization of a sustainable society through these efforts.

[Key Items for Implementation]

① Energy conservation

- The Production Technology Improvement Committee will serve as the axis for promoting the early resolution of technical issues and the exploration of new themes.
- Companies must effectively utilize subsidy systems to achieve early commercialization.

② Key Themes of Each Business Site

- Omi Plant: Reduction of odor from chloroprene wastewater and reduction of monomer atmospheric emissions
- Chiba Plant: Planned reduction of VOC emissions in accordance with the hazard information of chemical substances

Achievement of Carbon Neutrality

Roadmap to FY2050

In fiscal 2020, the Denka Group declared its goal of becoming carbon neutral by fiscal 2050. As a milestone toward this goal, we are aiming to reduce CO₂ emissions by 50% (compared to fiscal 2013) by fiscal 2030.

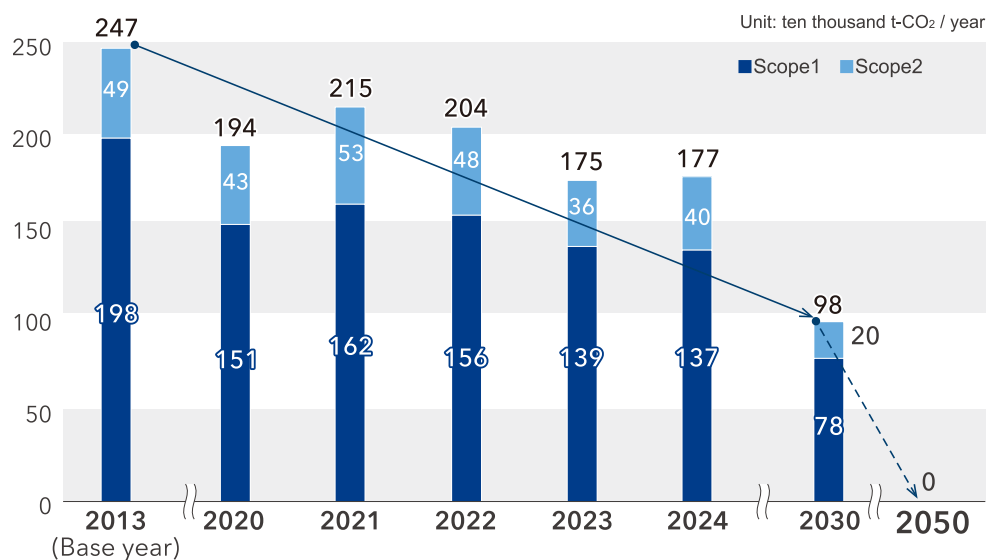
In fiscal 2024, our annual emissions from the Company and Group companies totaled 1.77 million tons, achieving a 72% reduction compared to fiscal 2013, due to the transformation of our business portfolio, promotion of energy conservation, introduction of renewable energy (hydroelectric power), and reduction in production volume.

Going forward, we will continue and promote the following measures as initiatives toward achieving carbon neutrality.

Transforming our portfolio	Through a transformation of our portfolio, including withdrawal from the cement business, we will reduce our CO ₂ emissions.
Energy conservation	The Omi Plant (which began operation in October 2020) and Chiba Plant (which began operation in June 2022) have introduced high-efficiency gas turbine power generators. We will continue to promote thorough energy conservation at each of our business sites.
Further introduction of renewable energy	Currently, we have 17 hydroelectric power generation facilities (one of which started operation in FY2022). We are also promoting the introduction of solar power generation at several of our business sites to further expand our use of renewable energy.

With an eye toward collaborations with local communities and surrounding companies, we are exploring and examining the possibility of recovering CO₂ and repurposing it as a chemical product. At the same time, we will also work on the introduction and development of environmental burden reduction processes aimed at reducing generated CO₂ emissions. By combining these technological developments with collaboration with external parties, we will steadily reduce the CO₂ emissions generated by our company.

Medium- to long-term targets for reduction of greenhouse gas emissions



- ※ Denka Group (Consolidated)
- ※ In this report, the total values of consolidated companies are presented instead of those of Denka alone.

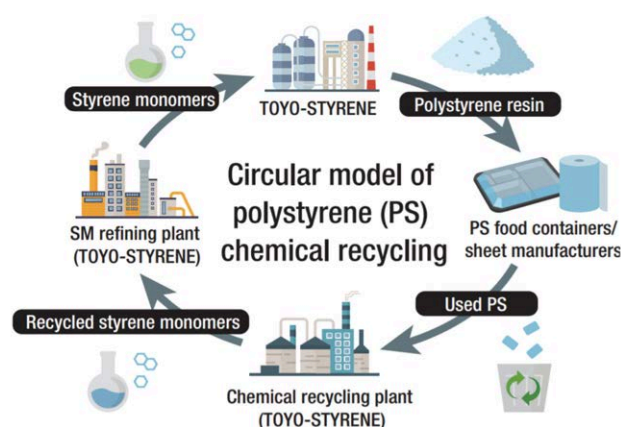
Review our business management structure		Business portfolio shift		Achieve carbon neutrality
Promote the reduction of environmental impact of products based on carbon footprint (CFP) evaluation		Introduce and evaluate CFP calculation system	Reduce environmental impact including the supply chain based on evaluations	
Contribute to a reduction in emissions across the value chain	Develop and provide eco-friendly products and technologies designed to reduce environmental impact		Develop and popularize xEV-related products and eco-friendly concrete, etc.	
	Recycle and reuse plastics (promotion of PS chemical recycling)		Establish testing facilities and implementation schemes	
Reduce emissions at business sites	Pursue energy savings while promoting the use of renewable energy		Thorough promotion of energy conservation and further use of renewable energy	
	Develop and utilize CCUS	Separate and recover	Ensure preparations for facility installation	
		Utilize	Introduce and utilize cutting-edge technologies	
	Explore chemical synthesis technologies using CO ₂		Introduce and utilize cutting-edge technologies	
	Develop and introduce processes to reduce environmental impact		Improve processes and introduce new processes	
	Hydrogen conversion of power generation fuel		Ensure preparations for facility installation	
			Shift to hydrogen fuel	

Efforts to Reduce Environmental Impact

The Denka Group is addressing the issues of reducing environmental burden, recycling waste plastics, and conserving biodiversity through its products and technologies in pursuit of fulfilling its social responsibilities as a chemical manufacturer.

1. Resource recycling/Chemical recycling

The Company has commenced the commercialization of the chemical recycling of polystyrene resins in collaboration with our equity-method affiliate, TOYO STYRENE CO., LTD. We have introduced technology from Agilyx Corporation in the United States and decided to construct a plant (annual processing capacity: approximately 3,000 tons) at our Chiba Plant, with operations scheduled to commence in the latter half of fiscal 2023. Unlike conventional material recycling, this groundbreaking method has no restrictions on the applications of the regenerated polystyrene and can reduce CO₂ emissions by half compared to normal production methods. We will continue to promote these initiatives with the aim of achieving early full-scale implementation.



2. Response to Biodiversity

Denka recognizes that a certain period of time is required for collecting, organizing, and examining natural environmental information and making decisions. Therefore, we have started taking action from September 2022 with the aim of finding points of contact between our business activities and biodiversity and identifying priority issues, using the LEAP approach[※] recommended by the TNFD guidelines.

Specifically, we conducted surveys using public data and literature on the natural environment surrounding our seven domestic business sites. We then focused on our Omi Plant (located in Itoigawa City, Niigata Prefecture), which has 17 hydroelectric power plants in nearby mountains and the greatest points of contact with the natural environment, and began extracting and evaluating those points of contact. Based on this, we will analyze our risks and opportunities in relation to the natural environment and implement specific measures for biodiversity conservation. Furthermore, we will gradually expand the targets to other business sites, and while continuing the above activities in a cycle, aim to maintain and improve the natural environment from a long-term perspective.

[※] A systematic evaluation process based on scientific evidence as proposed by TNFD for companies to disclose information on nature-related risks and opportunities.

Efforts for environmentally friendly products

Denka is working towards the development of environmentally conscious products in its quest for a sustainable future. Our environmentally friendly products play an important role in protecting the global environment and realizing a sustainable society. For details, please refer to the list of SDGs contribution products.

➤ [Click here for list of products that contribute to the SDGs](#)

Carbonization agent "LEAF"

The Company has developed a carbonization admixture, "LEAF," which utilizes industrial waste as a raw material, using the technology of special cement admixtures that we have cultivated over many years. "LEAF" has the characteristic of actively reacting with and fixing CO₂. By formulating this "LEAF" into an environmentally friendly concrete, "CO₂-SUICOM," which was jointly developed by Kajima Corporation, Chugoku Electric Power Co., Inc., Randes Co., Ltd., and the Company, CO₂ is absorbed and fixed during the curing of the concrete, aiming for a net reduction of CO₂ emissions from the cement manufacturing process.

Electronic circuit substrate "SN Plate"

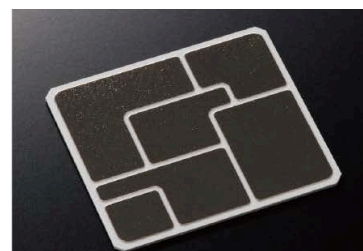
Our high thermal conductivity and high toughness ceramic substrate "SN Plate" has about 4 times the thermal conductivity of alumina and is a material based on high toughness silicon nitride (Si₃N₄) with excellent mechanical properties. By imparting high conductivity to the mechanical properties, it is used as a lightweight power module substrate for electric vehicles and electric railways, which require high reliability. We will contribute to the reduction of CO₂ emissions by supporting the electrification (xEV) of the automotive industry, which is expected to accelerate in the future, with our material technologies.



Road boundary block



Foundational block for erecting a fence



DENKA SN Plate

Thinking Behind Our Environmental Management

Aiming for "net zero CO₂ emissions" by fiscal 2050 and reduce 60% compared to fiscal 2013 in fiscal 2030

To maintain an environment in which society and ecosystems can continue to survive into the future, Denka Group aims to contribute to achieving the goals of the Paris Agreement, an international framework, and to achieve net-zero greenhouse gas emissions (carbon neutrality) by fiscal 2050. To achieve this, we are promoting energy conservation and expanding the use of renewable energy, primarily hydroelectric power, while also working to reduce CO₂ CCUS: Separating and capturing carbon dioxide from emission sources * We will also take on the challenge of introducing innovative technologies such as the use of hydrogen, a clean energy source. Furthermore, in order to reduce emissions at our own business sites and contribute to decarbonizing society as a whole, we will promote the development and provision of environmentally friendly products and technologies that reduce the environmental impact, and will strengthen our efforts to recycle resources by introducing new plastic recycling methods.

※ Carbon dioxide Capture, Utilization and Storage : CO₂ capture, utilization and storage

The Denka Group's Policies on the Prevention of Environmental Pollution

Denka accurately grasps the environmental burden substances emitted from the production facilities of group companies and is engaged in ongoing reduction efforts. The target substances include greenhouse gases such as CO₂, SO_x (sulfur oxides), NO_x (nitrogen oxides), particulates, BOD (biochemical oxygen demand), COD (chemical oxygen demand), as well as substances designated by the PRTR system (Pollutant Release and Transfer Register). In addition, in response to the social issue of marine plastic waste, we are also focusing on the initiatives for reducing plastic waste emissions and recycling established by the Plastic Resource Circulation Promotion Law, which came into effect in April 2022.

We are actively introducing removal devices for environmental burden substances, and complying with self-imposed standards that are stricter than relevant laws and regulations, and will continue to strive to reduce the emission of environmental burden substances.

Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions

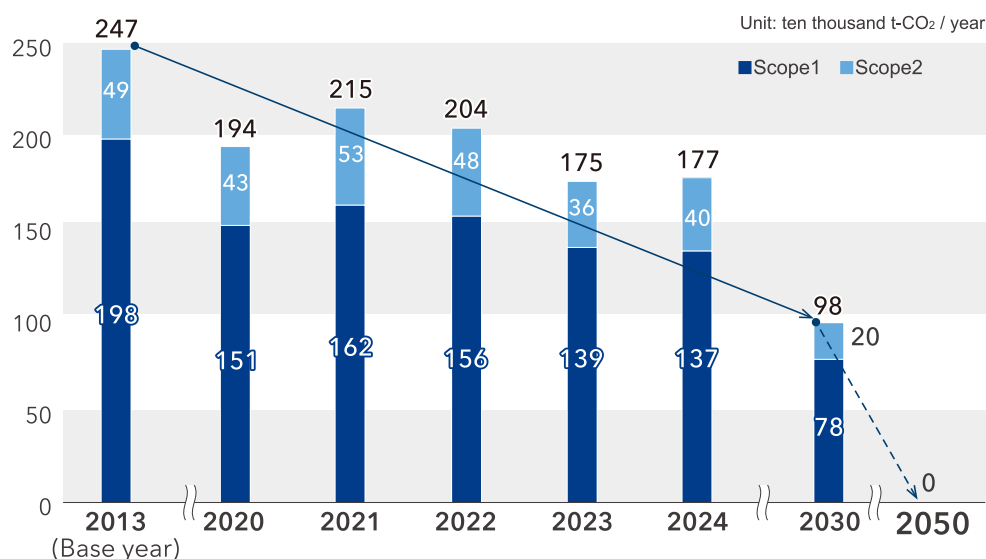
Greenhouse gas emissions

The Company aims to achieve carbon neutrality by 2050 for CO₂ emissions from its own corporate activities (Scope 1 and 2) that can be directly reduced. To this end, we will work to reduce the environmental impact of our fuel and raw materials and production processes, and promote energy conservation and the use of renewable energy. In order to promote decarbonization, there are limits to what can be done by individual companies. Therefore, in addition to our own efforts, we will actively seek to collaborate with groups of companies in the surrounding area and local governments to develop social infrastructure.

Greenhouse Gas Emissions

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Scope 1 (Emissions)		Consolidated	t-CO ₂ /year	162.0	155.9	139.3	137.4	110.0	78
Scope 2 (Emissions)		Consolidated	t-CO ₂ /year	52.6	47.6	35.9	39.8	26.3	20
Scope 1+2 (Emissions)	Medium- to long-term targets for reduction of greenhouse gas emissions	Consolidated	t-CO ₂ /year	214.6	203.5	175.2	177.2	136.3	98
	Actual results compared to fiscal 2013 (Scope 1+2)	Consolidated	%	87%	82%	71%	72%	55%	40%

Medium- to long-term targets for reduction of greenhouse gas emissions



※ Denka Group (Consolidated)

Examples of Initiatives

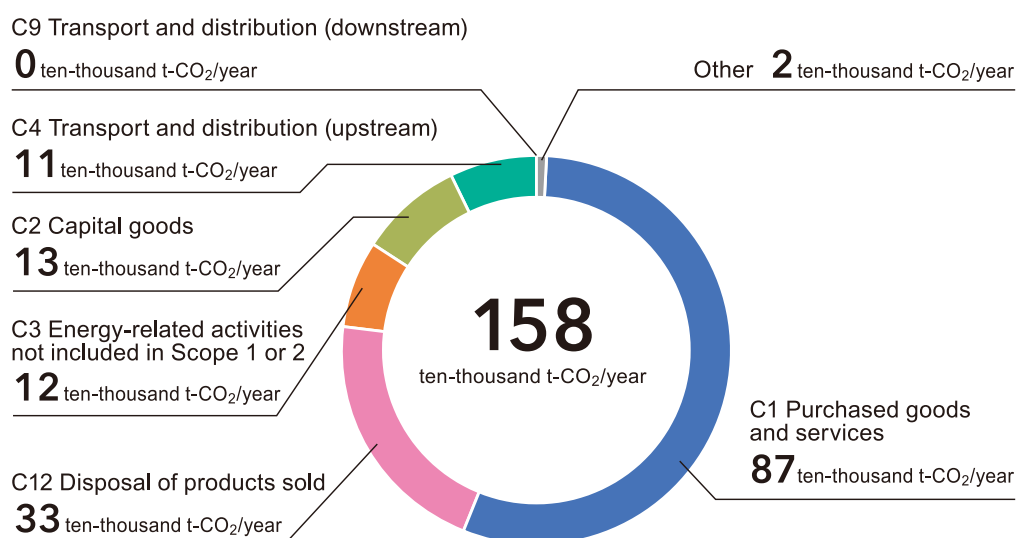
Employing our unique resources and technologies, we will promote the following global warming countermeasures from the perspective of optimizing entire product life cycles.

- a** Raise the ratio of renewable energy to overall energy consumption, mainly by taking advantage of our hydroelectric power generation facility network while introducing new gas turbine generators that boast high efficiency and lower environmental footprints
- b** Create innovative technologies supporting CO₂ capture, utilization and storage (CCUS)* and commercialize them
- c** Develop and deliver eco-friendly products and environmental load reduction technologies employing Denka's unique strengths
- d** Commercialize chemical recycling technologies enabling the effective utilization of waste plastics

*A technology aimed at collecting CO₂ from exhaust gas emitted by plant facilities and separating it from other exhaust gas content to prevent its release into the atmosphere. Discussions are now under way to identify methods to sequester collected CO₂ in underground or seabed storage or to reuse it as a raw material of chemical or fuel production. Acting in collaboration with external organizations, we are currently studying CCUS, with a goal of commercializing this technology by the end of 2030.

In the future, we will continue to work on reducing Scope 3 emissions through cooperation with upstream and downstream partners and the development and provision of environmentally conscious products and technologies for reducing environmental footprint based on our unique technologies.

Current Status of Greenhouse Gas Emissions throughout the Value Chain (Scope 3/FY2024)



Current Status of Greenhouse Gas Emissions throughout the Value Chain (Scope 3)

Category		Fiscal Year 2022		Fiscal Year 2023		Fiscal Year 2024	
		Emissions (t-CO ₂ /year)	Percentage (%)	Emissions (t-CO ₂ /year)	Percentage (%)	Emissions (t-CO ₂ /year)	Percentage (%)
C1	Purchased Goods and Services	846,856	53.2%	779,585	55.1%	873,385	55.1%
C2	Capital goods	116,783	7.3%	66,623	4.7%	134,950	8.5%
C3	Energy-related activities not included in Scope 1 and 2	128,465	8.1%	109,607	7.7%	116,373	7.3%
C4	Upstream transportation and distribution	131,555	8.3%	110,136	7.8%	112,214	7.1%
C5	Waste generated through business activities	18,398	1.2%	17,989	1.3%	13,665	0.9%
C6	Business trips	546	0.0%	563	0.0%	568	0.0%
C7	Employee commuting	1,705	0.1%	1,760	0.1%	1,770	0.1%
C8	Upstream leased assets	-	0.0%	-	0.0%	-	-
C9	Downstream Transportation and distribution	0	0.0%	0	0.0%	756	0.0%
C10	Processing of sold products	-	0.0%	-	0.0%	-	-
C11	Use of sold products	-	0.0%	0	0.0%	-	-
C12	End of life treatment of sold products	347,466	21.8%	328,816	23.2%	331,087	20.9%
C13	Downstream Leased assets	-	0.0%	-	0.0%	-	-
C14	Franchises	-	0.0%	-	0.0%	-	-
C15	Investments	-	0.0%	-	0.0%	-	-
Total		1,591,774	100%	1,415,079	100%	1,584,767	100%

Efforts toward zero emissions

Our company continues its efforts toward achieving zero emissions ※ by utilizing industrial waste as a substitute for raw materials and thermal energy in cement kilns and reducing waste emissions through various production process improvements.

※ Definition of zero emissions: (Waste landfill volume ÷ Total waste generated) < 1% Target: Domestic sites including affiliated companies

Efforts for Information Disclosure

Amid growing attention to ESG investment that emphasizes corporate social responsibility, the importance of environmental information disclosure is increasing. The Denka Group is actively working on information disclosure regarding environmental burden reduction measures through financial reports and public disclosure to external frameworks.

Since 2015, the Denka Group has been responding to CDP's Climate Change Questionnaire to enhance environmental management aimed at promoting the sustainable use of resources and energy and increasing corporate value. From 2019, we have also expanded our response to include Water Security. Furthermore, we are objectively analyzing our responses to CDP, and conducting governance related to environmental management and examining and improving risks and opportunities based on future insights considering climate change.

In 2024, we obtained the scores of B for Climate Change and A for Water Security.

> [The latest CDP questionnaire is here](#)

Efforts to Reduce CFC Emissions

Our company is implementing the following initiatives to fulfill our responsibilities as the administrator of the target devices ※¹.

- ① As of April 1, 2020, all applicable devices owned by Denka main office have been registered to the refrigerant management system (RaMS) of the Japan Refrigerant and Environment Conservation Organization (JRECO) ※², and appropriate management of devices as stipulated in the Fluorocarbon Emission Control Act from installation to disposal is being conducted.
- ② In line with the replacement of aging air conditioning and refrigeration equipment, we are also switching to refrigerants with a lower greenhouse effect.

In addition, JRECO conducts an annual rating of companies regarding their understanding and awareness of the Act on Regulation, Efforts, and Information Disclosure of Fluorocarbons, and information dissemination. Our company has received the highest rating of A rank for three consecutive years.

In the future, we will continue to implement appropriate inspections and early leak prevention measures, and promote efforts to prevent global warming as well as ensure compliance with laws and regulations.

■ Denka Head Office and 7 business sites + 1 research facility

Item	Unit	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Calculation of CFC emissions leak ※ ³	t-CO ₂	572	790	771	5,190	303

※¹ Applicable devices: First-class specified products (commercial air conditioning and refrigeration equipment) as defined in the CFC Emission Regulation Act

※² Number of owned devices: 6,748 (Air conditioning equipment 4,187 / Refrigeration and freezing equipment 2,561) As of June 30, 2025

※³ Calculation of leakage amount: Carbon dioxide equivalent

Conducting third-party verification

In order to improve the reliability and transparency of the data of our greenhouse gas emissions, and to promote ongoing environmental management, we have received verification from an independent third party (Japan Quality Assurance Organization: JQA).

For details, please refer to the reports posted on our website.

[Period subject to verification]

Japan: April 1, 2023 – March 31, 2024

Overseas: January 1, 2023 – December 31, 2023

[Scope of Verification]

- ① Greenhouse gas emissions (energy-origin, non-energy-origin CO₂ emissions) for Scope 1 and 2
- ② Greenhouse gas emissions for Scope 3 (Categories 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15)

[Applicable business sites]

- ① Denka's 10 domestic plants (Omi Plant, Omuta Plant, Chiba Plant, Bibai Plant, Shibukawa Plant, Ofuna Plant, Isesaki Plant, Isesaki-Ota Plant, Niigata Plant, Kagamida Plant)
- ② Greenhouse gas emissions from Denka headquarters aggregated for Scope 3 (Categories 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15)

[Scope of calculation]

Scope 1 and 2 covers CO₂ emissions from energy and non-energy sources during the period from April 2023 to March 31, 2024, at 10 plants in Japan.

Scope 3 (Categories 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) covers emissions during the period from April 2023 to March 31, 2024. However, the targets for each category are based on our calculation rules.

[Verification Report]

[Greenhouse Gas Emissions Verification Report \(911KB\)](#) Issued on March 27, 2025



Climate change risks and opportunities

Responding to risks and opportunities

The Denka Group conducts scenario analyses based on the "below 1.5°C scenario (Glasgow Climate Pact)", and the "below 4°C scenario" to identify risks and opportunities posed by climate change. We continue to verify the impact expected in 2030 and the measures to be taken in response to these impacts. In terms of policies and regulations, the introduction of carbon taxes and emissions trading (carbon pricing) and the risk of European battery regulations and carbon border adjustment measures have been foreseen. On the other hand, our diverse product and business portfolio also presents opportunities for sales expansion, such as the use of LEAF, a carbonated concrete admixture, and electronic materials used in xEVs. Going forward, we will quantitatively grasp business risks and opportunities for the Denka Group as a whole, implement appropriate responses in line with the TCFD recommendations, and reflect these in our management plans and business strategies.

Furthermore, the Denka Group supports climate change-related laws and policies (such as the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures) and responds to these through various reports to governmental agencies based on law.

■ Extraction of risks and opportunities as Denka based on scenario analysis associated with climate change

■ Risks ■ Opportunities

Scenario	TCFD Classification	Item	Expected impact	Relevant Denka business division (Assumed relevant products)	Impact on business fields	Countermeasures
1.5°C or less	Policies and regulations	Introduction of carbon tax and introduction of emissions trading system	Large	All departments	<ul style="list-style-type: none"> Increased cost burden related to overall emissions and/or emissions exceeding cap 	<ul style="list-style-type: none"> Energy-saving measures and introduction of new technologies to reduce non-energy-derived CO₂ emissions in addition to the reduction of CO₂ emissions
		Setting and mandatory introduction ratio of bio-based raw materials Expansion of requests for plastic resource circulation (waste reduction)	Small	Polymer Solutions Electronic and Advanced Products Elastomers & Infrastructure Solutions	<ul style="list-style-type: none"> Replacement of one-way disposable resins with other materials introduction of bio-based raw materials has resulted in a decline in product properties and an increase in cost burden. 	<ul style="list-style-type: none"> Introduction of chemical recycling, promotion of resource circulation of styrene resins, replacement of biopolymer blended products, improvement of properties, and cost reduction
	Technology and reputation	Decarbonization requests for products that emit large amounts of CO ₂ during manufacturing and global promotion of CCUS	Large	Elastomers & Infrastructure Solutions (Cement products, special cement, carbide, chloroprene)	<ul style="list-style-type: none"> Increase in manufacturing costs If there is no response, alternative materials will be considered. 	<ul style="list-style-type: none"> Quick introduction of CFP evaluation for information disclosure Energy-saving measures and introduction of new technologies to reduce non-energy-derived CO₂ emissions in addition to the reduction of CO₂ emissions Companies are seeking collaboration with surrounding companies and local governments at each business site.
	Resource efficiency	Emergence of technologies with LCA (CFP) advantages	Medium	Electronic and advanced products (e.g. heat dissipation materials)	<ul style="list-style-type: none"> Failure to disclose CFP calculation may hinder the export to EU region due to the progress of alternative materials. 	<ul style="list-style-type: none"> Companies must expand production capacity in response to demand. Promoting/disclosing CFP calculation, reducing CO₂ during product manufacturing

Scenario	TCFD Classification	Item	Expected impact	Relevant Denka business division (Assumed relevant products)	Impact on business fields	Countermeasures
4℃	Energy sources	Transition to clean energy	Large	All departments	<ul style="list-style-type: none"> Increase in renewable energy ratio and hydrogen utilization 	<ul style="list-style-type: none"> Expansion of hydroelectric power generation capacity, hydrogen energy utilization, and hydrogen production using hydroelectric power (water electrolysis)
	Products/Services	Sales expansion of existing products and development of related parts due to spread of electric vehicles	Medium	Electronics and cutting-edge products (Power conditioners installed in EV vehicles, silicon nitride ceramic substrates related to batteries, spherical alumina, heat dissipation materials, acetylene black products, etc.) Elastomers & Infrastructure Solutions (Arsenic and amorphous silica paper for LiB insulation and fire prevention)	<ul style="list-style-type: none"> Increase in demand for electric vehicle-related materials and products Determination of business viability for this application, mass production, and sales expansion Decline in demand for internal combustion engine components 	<ul style="list-style-type: none"> Companies must expand production capacity in response to demand. Confirm required performance based on user work, promote prototype development through collaboration with other companies, and make business feasibility judgment for this need including price. Capital investment, new product development Expansion into new applications related to EVs
		Establishment of renewable energy supply systems	Medium	Electronic and advanced products (acetylene black) Elastomer (cable)	<ul style="list-style-type: none"> Increase in demand for materials used in storage batteries and power transmission network 	<ul style="list-style-type: none"> Companies must respond to the needs of the market by expanding production capacity and developing higher functionality products.
	Physical Risks	Droughts due to changes in precipitation patterns, damage to production facilities and plant shutdowns due to typhoons, heavy rains, and floods, and disruption of supply chains	Medium	All departments	<ul style="list-style-type: none"> Cost burden for recovery of production facilities and loss of opportunity benefit due to suspension of operation Suspension of production and sales activities due to damage to production facilities of raw material procurement sources and product users 	<ul style="list-style-type: none"> Review of disaster levels and strengthening of facility maintenance measures Diversification of supply chains
	Products/Services	Increase in heatstroke and infectious diseases due to rising temperatures (new infections) Appearance of symptoms)	Medium	Life Innovation	<ul style="list-style-type: none"> Increase in demand for diagnostic reagents and vaccines including new infectious diseases 	<ul style="list-style-type: none"> Development of new reagents and vaccines
		Increasing requests for infrastructure development to respond to natural disasters	Medium	Elastomers & Infrastructure Solutions	<ul style="list-style-type: none"> Increasing demand for infrastructure-related products and services associated with disaster prevention and mitigation 	<ul style="list-style-type: none"> Companies must respond to the needs of the market by expanding production capacity and developing higher functionality products.

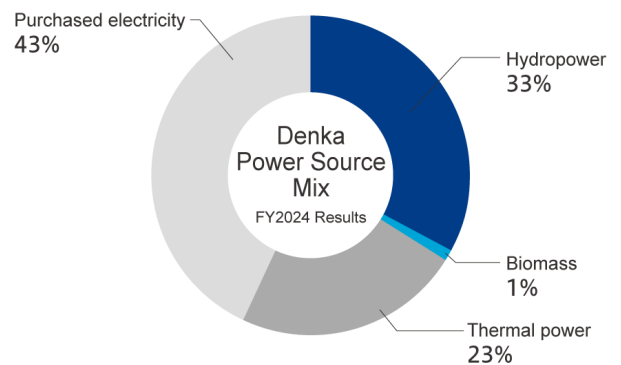
Promoting the Use of Clean Energy

Expansion of renewable energy and introduction of environmentally friendly power generation technologies

Denka has been working to promote the use of renewable energy for over 100 years. We have developed technologies for generating renewable energy, primarily hydroelectric power, and technologies for making the most of this precious energy source in chemical manufacturing. Through the application of these technologies, we contribute to the conservation of the global environment and will further focus on our efforts to promote renewable energy, which is one of our strengths.

1 Long-term outlook for renewable energy (power generation capacity)

In order to achieve carbon neutrality by 2050, we have set out to expand green energy by increasing hydroelectric power generation and installing new solar power generation systems in our Mission 2030, and have commenced efforts aimed at achieving our goal of a maximum output of 150 MW from renewable energy power generation. Currently, we are working to improve the power generation efficiency of our existing hydroelectric power plants and are promoting the introduction of new solar power generation systems at each of our business sites. Furthermore, with a view to the medium- to long-term, we will accelerate our efforts to expand renewable energy by examining the possibility of introducing wind and geothermal power generation, focusing on the construction of new hydroelectric power plants.



Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Breakdown of Energy Consumption by Source	Hydroelectric	Non-consolidated sites	%	-	32	39	33	37	-
	Biomass	Non-consolidated sites	%	-	1	1	1	0	-
	Waste heat power generation	Non-consolidated sites	%	-	1	1	0	0	-
	Solar power generation	Non-consolidated sites	%	-	-	-	-	0.1	-
	Fossil fuels	Non-consolidated sites	%	-	21	23	23	24	-
	Purchased electricity	Non-consolidated sites	%	-	45	36	43	40	-
	Total	Non-consolidated sites	%	0	100%	100%	100%	100%	-
Breakdown of Energy Consumption by Source (energy/non-energy)	Renewable energy electricity mix + electricity mix with non-fossil fuel certificates / Electricity consumption	Non-consolidated sites	%	33%	33%	40%	33%	37%	76%

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
In-house Power Generation Capacity (maximum output)	hydroelectric power *	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	126.34	140.29	140.29	140.29	140.29	140.29
	Solar power generation (including sales outside of the FIT scheme)	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	2.99	2.99	2.99	3.89	5.79	9.71
	Waste heat power generation/Biomass	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	11.1	11.1	11.1	11.1	0	0
	Thermal power generation	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	62.405	66.305	66.305	66.305	66.305	66.305
	Total renewable energy generation capacity	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	132.33	146.28	146.28	147.18	146.08	150
	Total on-site power generation capacity	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	202.8	220.7	220.7	221.6	212	216
Fiscal Year 2022 Energy Consumption	Renewable energy consumption	Non-consolidated sites	MWh	541,445	530,387	519,619	473,146	518,853	-
	Amount of non-renewable energy consumed	Non-consolidated sites	MWh	1,121,524	1,083,241	783,894	974,399	898,393	-
	Total	Non-consolidated sites	MWh	1,662,969	1,613,628	1,303,513	1,447,545	1,417,246	-
Energy conservation	Compared to previous year (Target: 99% compared to previous year)	Non-consolidated sites	%	101%	101%	101.5%	98%	99% compared to previous year	99% compared to previous year

➤ Environmental Performance Data

※ Includes 50% of the hydroelectric power plants of the Kurobe River Power Company (50% owned by the Company)

2 Denka's hydroelectric power

There are 17 hydroelectric power plants in the vicinity of the Omi Plant, including the power plant of Kurobegawa Electric Power Company, which is a joint investment with Hokuriku Electric Power Company. The maximum output of these power plants is approximately 140,000 kW, making it one of the largest of all private manufacturing facilities in Japan. All of these power plants are "inflow type" hydroelectric power plants, which guide river water to the turbine runner and return it to the river after power generation, making it a method of power generation that places less burden on the natural environment. Hydroelectric power generation not only does not emit greenhouse gases, but is also one of the excellent renewable energy sources with high energy efficiency, and can generate electricity sustainably while coexisting with nature. We will effectively utilize this resource to contribute to the realization of a sustainable society.

Hydroelectric power plants

Japan

17 plants *Includes co-owned plants

Power generation capacity

140,290 kW

※ As of August 2025, including Denka's ownership of output from hydroelectric power plants owned by a joint venture



New Omi-gawa Hydroelectric Power Plant
(Started operation in 2021)



New Himekawa No.6 Hydroelectric Power Plant
(Started operation in 2022)

3 Efforts for energy conservation

In achieving carbon neutrality, streamlining energy use is one effective means. To date, we have promoted the switching of fuels at our thermal power plants, the introduction of high-efficiency gas turbine generators, and waste heat power generation at our cement plants, and have made efforts to use energy efficiently. More recently, in 2020, the operation of a high-efficiency gas turbine began at our Omi Plant, and in 2022, a similar gas turbine started operation at our Chiba Plant.



Gas turbine power generation facility at
Omi Plant that commenced operation in
2020



Gas turbine power generation facility at
Chiba Plant that commenced operation in
2022

4 Efforts for solar power generation

Since 2013, we have been installing solar power generation systems at our Shibukawa Plant and Isesaki Plant located in the Gunma Prefecture.

Currently, we are considering new candidate sites including our group companies and domestic plants. To achieve our non-financial KPI of our management plan "Mission 2030" of 150 MW maximum renewable energy output as early as possible and further increase this figure, we have commenced operation of solar power generation systems at our overseas sites (Vietnam). Furthermore, we plan to install solar power generation systems at our Chiba Plant and overseas sites (Singapore) by fiscal 2025.



DENKA Solar Power Shibukawa



Denka Advanced Materials Vietnam Plant
Solar Panels

Certification of special measures for the surcharge based on the Renewable Energy Special Measures Act

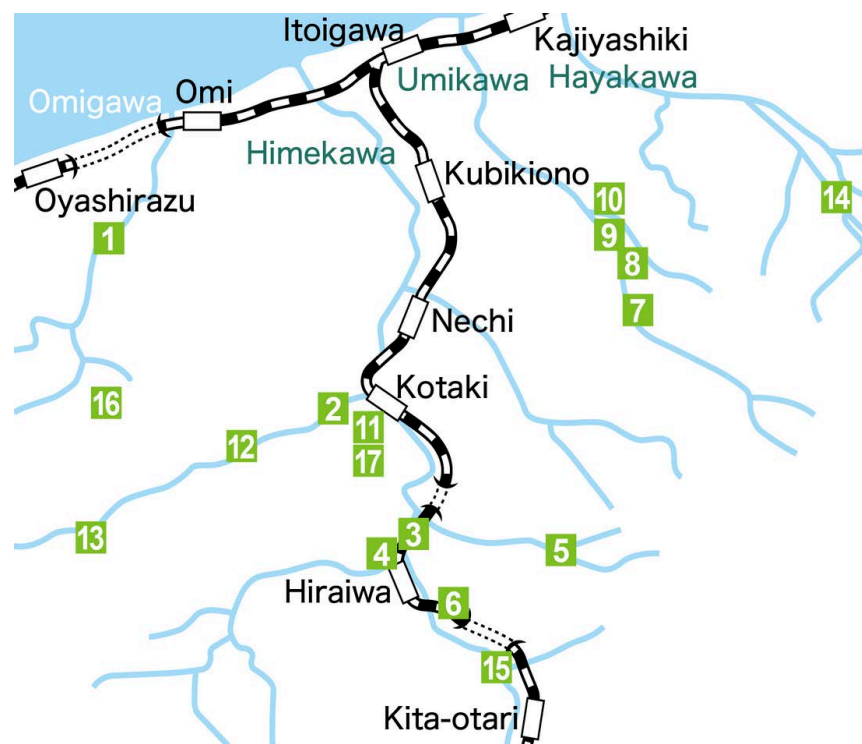
Our company and Denka Kojundo Gas Kabushiki Kaisha ※ submit energy-saving investment plans to the Minister of Economy, Trade and Industry and implement these plans in order to receive the special measures for the surcharge system based on the Act on Special Measures Concerning the Use of New Energy Sources.

※ Denka Kojundo Gas Kabushiki Kaisha
1, Shinkai-machi, Omuta, Fukuoka, Japan (within Omuta Plant)
Established: October 16, 1984
Capital: 500 million yen
Ownership ratio: 60% (consolidated subsidiary)
Business description: Manufacturing and sales of various gases and liquefied gases

In-house power generation facilities plants and maximum output

hydroelectric power plant (map)

※ As of August 2025, including Denka's ownership of output from hydroelectric power plants owned by a joint venture



Facilities	Map		Fiscal Year 2023				Fiscal Year 2024			
			Maximum output (kW)		Company's maximum output (kW)		Maximum output (kW)		Company's maximum output (kW)	
Hydroelectric	1	Omigawa	3,300		3,300		3,300		3,300	
	2	Kotagikawa	5,200		5,200		5,200		5,200	
	3	Mesh	28,400		28,400		28,400		28,400	
	4	Oosogawa	9,800		9,800		9,800		9,800	
	5	YOKOGAWA 1ST	10,000		10,000		10,000		10,000	
	6	YOKOGAWA 2ND	16,000		16,000		16,000		16,000	
	7	KAIKAWA DAIICHI	3,800		3,800		3,800		3,800	
	8	Mikawa 2nd	4,700		4,700		4,700		4,700	
	9	Kaigawa 3rd	2,600		2,600		2,600		2,600	
	10	KAIKAWA YONTH	990		990	(FIT)	990		990	(FIT)
	11	HIMEKAWA 6TH	26,000	Kurobe Electric Power Co.	13,000		26,000	Kurobe Electric Power Co.	13,000	
	12	Takiue	15,000	Kurobe Electric Power Co.	7,500		15,000	Kurobe Electric Power Co.	7,500	
	13	Mizuki	5,000	Kurobe Electric Power Co.	2,500		5,000	Kurobe Electric Power Co.	2,500	
	14	Sasakura No. 2	10,200	Kurobe Electric Power Co.	5,100		10,200	Kurobe Electric Power Co.	5,100	
	15	Kita-Kotani	10,700	Kurobe Electric Power Co.	5,350		10,700	Kurobe Electric Power Co.	5,350	
	16	New Seihai River	8,100		8,100	(FIT)	8,100		8,100	(FIT)
	17	Shinhimekawa No. 6	27,900	Kurobe Electric Power Co.	13,950	(FIT)	27,900	Kurobe Electric Power Co.	13,950	(FIT)
Hydroelectric Total maximum output			187,690		140,290		187,690		140,290	
Total in-house consumption (excluding output for FIT)			-		117,250		-		117,250	
Solar Power		Shibukawa	1,990		1,990	(FIT)	1,990		1,990	(FIT)
		Isezaki	1,000		1,000	(FIT)	1,000		1,000	(FIT)
		DAV					900	(PPA)	900	(PPA)
Solar Total Maximum Output			2,990		2,990		3,890		3,890	
Natural gas		Omi	14,000		14,000		14,000		14,000	
Waste heat/biomass boiler		Omi Cement	11,100		11,100		11,100		11,100	
Gas turbine/Co-generation		Omi (Tomi)	34,685		34,685		34,685		34,685	
		Chiba	16,620		16,620		16,620		16,620	
Diesel		Shibukawa	1,000		1,000		1,000		1,000	
Total power generation capacity (including FIT)					220,685				221,585	
Total Maximum Output for In-house Consumption					194,655				195,555	

Facilities	Map		Fiscal Year 2023				Fiscal Year 2024			
			Maximum output (kW)		Company's maximum output (kW)		Maximum output (kW)		Company's maximum output (kW)	
Thermal Total Maximum Output			77,405		77,405		77,405		77,405	
Total power generation capacity (including FIT)					220,685				221,585	
Total Maximun Output for In-house Consumption					194,655				195,555	

Government Subsidies Related to the Environment and Energy

Utilization of Government Subsidies for the Environment and Energy

Our company actively utilizes subsidy programs from the Ministry of Economy, Trade and Industry and the Ministry of the Environment in its efforts to reduce energy consumption and environmental impact. Most recently (since fiscal 2018), we have been selected for eight subsidy programs, as shown in the table.

Energy Conservation

By utilizing the Energy Conservation Business Operator Support Subsidy from the Ministry of Economy, Trade and Industry, the Omi Plant has introduced a high-performance lime kiln and gas turbine power generation system, while the Shibukawa Plant has installed a high-efficiency boiler. These measures are expected to yield the desired effects at each site. In fiscal 2022, a high-efficiency gas turbine power generation system began operating at the Chiba Plant, contributing to energy conservation.

Reduction of Environmental Impact

The project was proposed as a consortium with Kajima Corporation and Takenaka Corporation for the NEDO (New Energy and Industrial Technology Development Organization) Green Innovation Fund Project "Concrete Manufacturing Technology Development Using CO₂." In this project, we will conduct material development using unused resources that have not yet been effectively utilized as industrial waste, elucidation of CO₂ fixation mechanisms, and development of quality control and fixation amount evaluation methods based on the technology cultivated with our carbonization admixture "LEAF."

Through this project, we aim to achieve and fully disseminate carbon-negative concrete.

In the Ministry of the Environment's "Resource Circulation Promotion Project," we have started a project for the chemical recycling of polystyrene resins, and a chemical recycling plant started operation in the second half of fiscal 2023.

List of Subsidized Projects

	Catagory	Project	Offices	Relevant government agency and Name of subsidy program		Year
1	Energy conservation	Introduction of Energy-saving equipment for electrolysis plants and thermal power facilities, and process improvement for carbide plants	Omi Plant	Ministry of Economy, Trade and Industry	Subsidy program for the rationalization of business operators' energy use, etc.	FY2015 to FY2018
2	Energy conservation	Improvement of gas turbine power generation, cement grinding machine, and water delivery pump	Omi Plant	Ministry of Economy, Trade and Industry	Subsidy program for the rationalization of business operators' energy use, etc.	FY2018 to FY2020
3	Energy conservation	Introduction of high-performance boilers	Shibukawa Plant	Ministry of Economy, Trade and Industry	Subsidy program for the rationalization of business operators' energy use, etc.	Fiscal Year 2018
4	Energy conservation	Switching to LED lighting	Omi Plant	Ministry of Economy, Trade and Industry	Subsidy program to support project costs of facility investments contributing to the reduction of electricity demand	Fiscal Year 2019
5	Energy conservation	Energy-saving business by renewing gas turbines for higher efficiency and larger size	Chiba Plant	Ministry of Economy, Trade and Industry	Subsidy program for the rationalization of business operators' energy use, etc.	Fiscal 2020 to 2022
6	Environmental and energy conservation	Switching to LED lighting	Chiba Plant	Ministry of the Environment	Subsidy program for CO ₂ emission reduction	Fiscal Year 2019
7	Environment	Development project of concrete and other manufacturing technologies using CO ₂	Omi Plant	Ministry of Economy, Trade and Industry	NEDO Green Innovation Fund Project	FY2022 to FY2026
8	Environment	Introduction of advanced recycling equipment for CO ₂ -reducing plastics	TOYO STYRENE CO., LTD.	Ministry of the Environment	Introduction of resource recycling and heightening equipment for decarbonization	FY2021 to FY2023

Initiatives to Biodiversity Conservation

Our Approach to Biodiversity

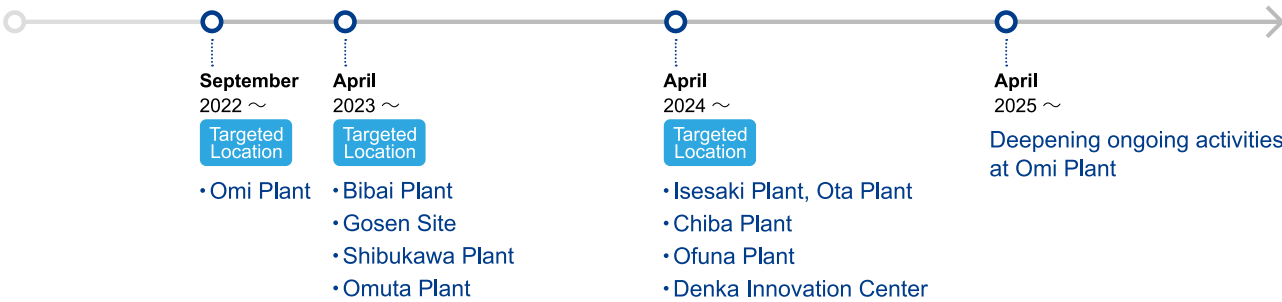
Coexistence with the natural environment is becoming increasingly important for establishing a sustainable society alongside climate change response, and the development of the frameworks for international information disclosure is gaining momentum. The Denka Group has established the ESG Basic Policy, which includes the goal of reducing environmental impact and protecting biodiversity. Under this policy, we are working to understand our impact on the environment and maintain and improve biodiversity in accordance with the recommendations issued by the TNFD [※].

※ TNFD: Taskforce on Nature-related Financial Disclosure

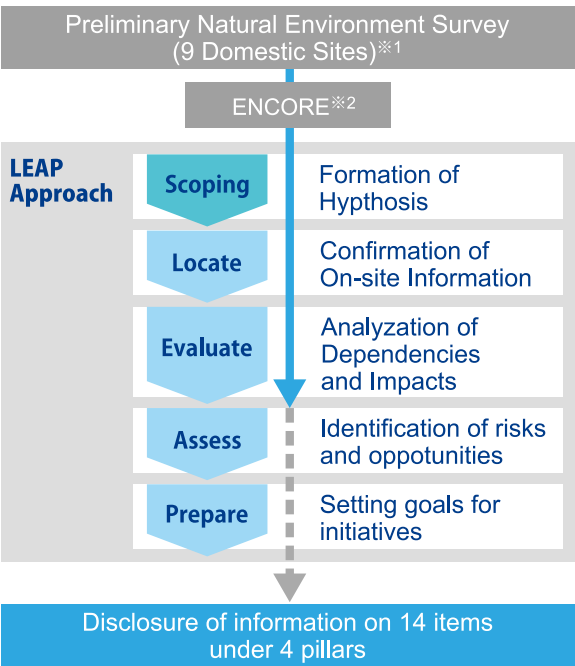
Efforts for biodiversity conservation

Starting in September 2022, Denka began working to identify the intersections between its business activities and biodiversity and identify priority issues using the LEAP approach ^{*} recommended in the TNFD guidelines. Furthermore, as Denka's business sites (plants) are scattered throughout Japan and the surrounding natural environments vary, the company investigated the intersections between each of its business sites (plants) and the natural environment (April 2023 to March 2025).

※ LEAP Approach: An integrated approach for evaluating nature-related issues based on scientific evidence, including points of contact between business activities and nature, dependencies and impacts, risks and opportunities. Consists of four phases: Locate, Evaluate, Assess, and Prepare.



Results of ENCORE analysis and on-site surveys



In Japan, we have conducted ENCORE ^{※2} analysis and on-site surveys (see "Preliminary Environmental Surveys" below) to understand the operational status of our nine domestic sites and their points of contact with the natural environment. Based on the results of our scoping and locating investigations and analyses, we have selected the Omi Plant as a model site for further priority initiatives, and are organizing our dependencies and impacts on, and their causal relationships with, this site. Going forward, we will identify risks and opportunities based on these results (Evaluate) and implement specific countermeasures.

- ※1 9 sites covered: Omi Plant, Omuta Plant, Chiba Plant, Bibai Plant, Shibukawa Plant, Ofuna Plant, Isesaki (Ota) Plant, Gosen Site (Niigata Plant, Kagamida Plant), Denka Innovation Center
- ※2 ENCORE: An analytical method to narrow down sectors and sub-industries and examine how they naturally depend on and are affected by the target

Preliminary survey of natural environment

Regarding the nine domestic business sites, we organized environmental data (the presence of areas important for biodiversity around the factory, the presence of areas where ecosystem integrity is rapidly declining, etc.) and confirmed the local points of contact with the natural environment from the perspective of site location and operational activities.

In addition, we are promoting exchanges of opinions with local governments where the sites are located to consider community-based initiatives, and are currently in discussions with the City of Machida, where the Denka Innovation Center is located, regarding activities for the conservation of rare plants.



Confirmation of location environment of Innovation Center



Confirmation of Shibukawa Plant wastewater route



Green areas within Chiba Plant



Rare species that grow naturally in the Denka Innovation Center



River environment near Gosen Site

■ Sites subject to preliminary survey of natural environment and response items

Base	Environmental Data Organization	On-site confirmation	Municipal hearing	Remarks
Omi Plant	○	○	○	Additional interviews with local experts on regional natural environment and flora and fauna
Omuta Plant	○	○	○	
Chiba Plant	○	○	○	
Bibai Plant	○	○	○	
Shibukawa Plant	○	○	○	
Ofuna Plant	○	○	—	Municipality hearing not conducted due to factory shutdown
Isesaki (Ota) Plant	○	○	○	
Gosen Site (Niigata Plant, Kagamida Plant)	○	○	○	
Denka Innovation Center	○	○	○	

Investigation and analysis of Omi Plant's dependence on and impact on nature in the applicable sectors

In the sector to which the Omi Plant belongs, we recognized that there is a strong impact on natural capital and a strong dependence on ecosystem services related to the categories of water, greenhouse gases, pollutants, waste, and species. Regions where the Omi Plant has contact with nature were identified as priority areas requiring particular attention.

- Factors of "dependence" and "impact" on ecosystem services that are likely to occur in the sector (industry) to which the Omi Plant belongs

Category	Dependent / Impact	Ecosystem services on which we depend/Factors that have an impact
Water	Dependent	Water flow adjustment
Water	Dependent	Water supply
Water	Dependent	Purification of water
Water	Impact	Water use
Greenhouse gas	Impact	Greenhouse gas emissions
Pollutants	Impact	The discharge of hazardous pollutants to water and soil
Waste	Dependent	Purification of solid waste
Waste	Impact	Generation and release of solid waste
Species	Impact	Disruption (e.g., noise, light)

Furthermore, we have begun investigations to check the situation of the forests distributed in the watershed area of the hydroelectric power, which is an important energy source for the Omi Plant, and the green space of the Omi Plant adjacent to the local residents' place of relaxation.



State of catchment area



Survey of natural environment of water source conservation forest



A place of relaxation for local residents: Tamika Pond and factory



Investigation of natural environment in green space at Tomi Plant



Rare species Natsuebina (Orchidaceae) confirmed in the green space of Tomi Plant

As shown above, for the category of natural capital, which has a strong dependence on and impact on nature, we are organizing and considering factors that cause changes to the ecosystem services on which we depend and the impact of our factory operations on natural capital, and examining issues related to our dependence and impact that should be prioritized.

In our examination, we will value collaboration with relevant organizations and communication with local experts on the natural environment, and link these to specific environmental conservation activities of the Denka Group.

Points of Contact Between Business Activities and Nature					Dependence and impact on nature				
Value chain	Name of base/facility	Business activities	Target area etc.	Relationship with the natural environment	Dependent	Impact	Integrity of ecosystems	Importance of biodiversity	Water stress
Procurement of raw materials	Water source conservation forest	Conserving water sources	Himekawa and other upper and middle reaches	The water source for hydroelectric power and industrial water uses important habitats for living organisms.	○	—	High	High	—
	Weir	Water intake	Himekawa, Aomikawa, Umikawa, Hayakawa	Water intake weirs have been installed on the rivers such as the Himekawa.	○	○	High	High	High
	Transmission line	Transmission	Transmission line area	Power lines installed in the habitat of birds	—	—	Small	Large	—
Manufacturing	Manufacturing site	Manufacturing	Factories and surrounding areas	There are secondary forests and the Aomi River around the waste storage site.	—	○	—	High	—
				The intake and discharge of water is conducted using the Omi River.	○	○	High	High	High
				The factory green space faces a secondary forest and part of it is also used as a green space.	○	—	Medium	—	—
	hydroelectric power facilities	Power generation	Around power generation facilities	Using river water such as the Himekawa for power generation	○	—	Small	Small	Small

- Integrity of ecosystems: Assessment of species diversity, risk of extinction, and natural capital of ecosystems in the natural environment (region)
- Importance of biodiversity: Evaluation of local importance such as being a legally protected area or an internationally protected area, a habitat of endemic species or a habitat of endangered species.
- Water stress: Evaluation of the amount of water used in relation to the supply of water (freshwater) available in the natural environment (region)

Examples of environmental conservation activities to be implemented in the future, taking into consideration our dependence on and impact on nature

- 1 Although hydroelectric power prevents the occurrence of greenhouse gases, it depends on the water flow adjustment service.
→ Ensure the water flow adjustment service (maintenance of water source, health of forest that nurtures water source).
- 2 The impact of "disturbance to organisms by sound and light" due to the operation of the Omi Plant may force environmental consideration in terms of operation and may cause degradation of ecosystem services.
→ Consider reducing noise and light impact.
- 3 The "Generation and Release of Solid Waste" associated with the operation of the Omi Plant may cause environmental changes on land due to the expansion of waste disposal sites.
→ In addition to the measures currently being implemented, new measures will be devised.

Participation in TNFD Forum

In August 2024, the Company became a member of the Taskforce on Nature related Financial Disclosures (TNFD), an international initiative on biodiversity.



> [Participation in initiatives](#)

Participation in Keidanren Nature Conservation Council

In October 2024, the Company will join the Keidanren Nature Conservation Council ※ and make social contributions to biodiversity through the Biodiversity Declaration Initiative.

※ The Keidanren Nature Conservation Council was established in 1992 to support nature conservation activities in developing countries and Japan, and to promote corporate nature conservation activities. As of November 2024, 141 companies are members of the Committee.

Community Activities to Protect Biodiversity

At the Shibukawa Plant, cleaning activities for agricultural water channels in the factory premises and adjacent areas are conducted in cooperation with the water use association of the Nakamura district where the factory is located. This activity is conducted every year before rice planting, contributing to the stable supply of agricultural water, protection of rice paddies, and support for rice cultivation, as well as helping maintain the ecosystem of various organisms living in the rice paddies.



Cleaning of waterway garbage and weeds, and removal of sediment and algae

Preservation of Water Resources

Issues Facing the Denka Group

Recognizing the global issue of climate change, the Company also recognizes that limited water resources are a global issue. In addition to maintaining and improving water quality in discharged water from business sites to public water areas such as oceans and rivers, the Company recognizes that water resources are indispensable for continuing production activities and that efficient utilization is important. The Company effectively utilizes water resources to generate hydroelectric power. Water resources are also related to climate change, and the Company's sites are predicted to be affected by droughts, heavy rains, and floods. Therefore, the Company believes that it is important to assess and prepare for risks that are expected in the future.

Specific Initiatives

At major plants such as the Chiba Plant and Omi Plant, we are reusing water and reducing water intake by circulating cooling water for equipment. In addition, since fiscal 2021, we have been conducting water risk assessments at Denka Group's sites using the water risk map (Aqueduct). For our domestic sites, we are also conducting more detailed risk assessments through current evaluations of water intake, discharge, and recycling. In fiscal 2024, water usage increased slightly from the previous fiscal year due to an increase in production volume. Regarding water usage reduction, we plan to continue implementing measures focusing on the maintenance and recovery / reuse of our piping.

Water Resource Data

		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets
Water Withdrawal	Fresh surface water	Non-consolidated sites	Megaliters	32,889	32,700	33,035	35,038	35,851
	Groundwater	Non-consolidated sites	Megaliters	24,832	25,204	25,456	27,238	27,993
	Third-party water sources (municipal water supply)	Non-consolidated sites	Megaliters	536	547	482	479	482
	Water withdrawal ^(※1) from water-stressed areas	Non-consolidated sites	Megaliters	0	0	0	0	0
	Total	Non-consolidated sites	Megaliters	58,257	58,451	58,973	62,755	64,326
Usage amount	Non-Consolidated	Non-consolidated sites	1,000 m ³	58,257	58,451	58,889	62,755	64,331
	Domestic / Overseas Key production facilities	Domestic / Overseas Key production facilities	1,000 m ³	50,464	47,166	64,952	65,247	65,274
	Total	Non-consolidated sites / Domestic & Overseas Key production facilities	1,000 m ³	108,721	105,617	123,841	128,002	129,605
Total drainage volume		Non-consolidated sites	Megaliters	55,336	56,107	56,642	60,280	61,648
Number of sites with high water risk and water stress		Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	4	4	4	4	-
Percentage of sites with high water risk and water stress (consolidated)		Non-consolidated sites / Domestic & Overseas Key production facilities	%	16%	16%	16%	16%	-

<Scope>

Non-consolidated Sites: 8 sites (manufacturing approximately 70% of total sales of Denka products)

Domestic & Overseas Key production facilities: 17 facilities of the Denka Group

Non-consolidated sites / Domestic & Overseas Key production facilities: 25 sites including 8 of the non-consolidated sites (90% of sales of Denka products are manufactured)

※1 There is no water withdrawal from water-stressed areas at the 8 major production bases in Japan.

Water Risk Assessment

The Company recognizes that its manufacturing plants with high water risk are located in Vietnam and China, and that its business establishment with high water stress is located in China (Suzhou). The Company has determined that approximately 16% of its major sites, which account for over 90% of its sales, are located in areas with high water stress. The Company will continue to evaluate and improve water risk in accordance with the establishment of new bases and the conduct of business activities.

➤ [Initiatives to Biodiversity Conservation](#)

Efforts to Promote Resource Circulation

Our Approach to Resource Circulation (Circular Economy)

The Denka Group is actively engaged in the development and provision of new solutions that promote the reduction of environmental burden and the efficient use of plastics, taking advantage of its integrated manufacturing facilities and product development capabilities ranging from synthetic resin materials to polymer processing and molding. Furthermore, the Denka Group participates in the [Clean Ocean Materials Alliance \(CLOMA\)](#) ※ and is involved in initiatives in which the industrial sector collaborates.

※ Established in 2019, this alliance aims to accelerate innovation through collaboration among various companies to prevent marine pollution caused by plastic waste disposal.

Our response to the "Plastic Resource Circulation Act"

The importance of promoting the recycling of plastic resources in Japan has been increasing in response to issues such as ocean plastic waste, climate change, and the strengthening of waste import regulations in various countries. In this context, the "Plastic Resource Circulation Act" was promulgated in June 2021 and came into effect on April 1, 2022. Our response to this law is as follows.

(1) Response to the Plastic-Use Product Design Guidelines

1. Companies must promote the launch of products with reduced environmental impact.
2. We will promote the launch of products using bioplastics.

※ We will continue to respond to customer requests and conduct research and development of seed products in accordance with the law, and will continue to launch products taking into consideration the plastic use product design guidelines.

(2) Regarding the voluntary collection and recycling program by manufacturers and sellers

1. We promote the chemical recycling business.

※ Operation of the chemical recycling plant started in March 2024.

(3) Companies must establish and implement goals and plans for the reduction and recycling of plastic waste.

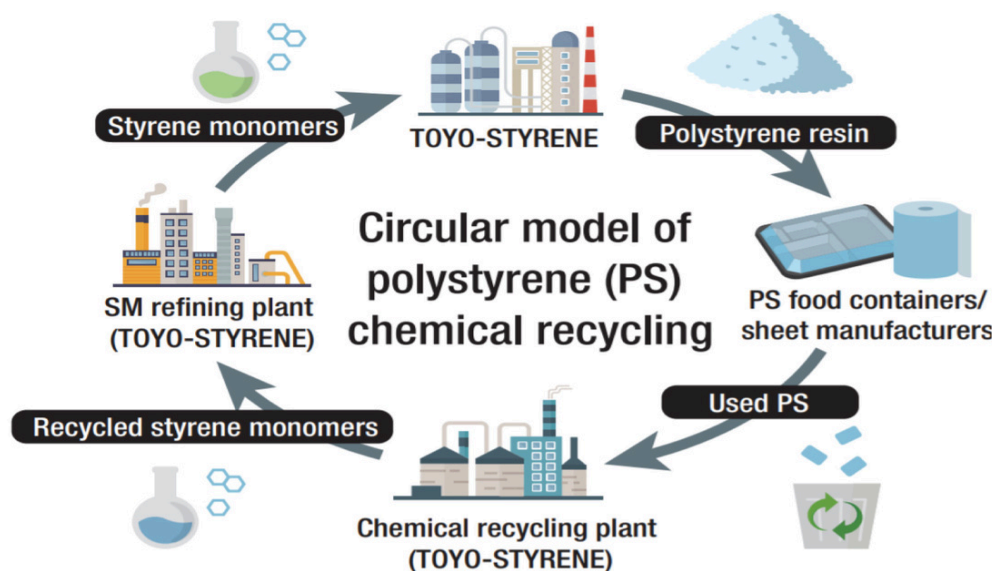
1. As a measure to curb emissions, we will continue to promote the commercialization of valuable resources.
2. As a measure for recycling, we will continue to promote recycling and thermal recovery.
3. We will continue our efforts toward achieving zero emissions by promoting the reduction of final disposal amount (landfill).

(4) Other responses

1. Companies must conduct education and training for employees on the reduction and recycling of emissions.
2. Companies clearly define management departments and persons responsible for each business site, appropriately grasp the status of emissions reduction and resource recycling, and manage records of these activities.

Chemical Recycling

We have begun commercializing the chemical recycling of polystyrene resin with our equity-method affiliate, Toyo Styrene Co., Ltd. We have introduced technology from Agilyx, a US company, and have decided to build a plant (annual processing capacity: approximately 3,000 tons) within our Chiba Plant, which is scheduled to begin operation in March 2024. In terms of environmental contribution, we estimate that the reduction in CO₂ emissions achieved by applying the chemical recycling process and the new emissions generated by the facility (including the reuse of by-products) will result in an approximately 40% reduction on a lifecycle basis compared to the existing simple incineration process. We will continue our efforts with the aim of achieving full-scale implementation as soon as possible.



Circular Partners (CPs)

In March 2023, the Ministry of Economy, Trade and Industry (METI) established the Circular Partners partnership to promote collaboration among industry, government, and academia in order to achieve a circular economy based on its Growth-Oriented Resource Autonomous Economic Strategy. The Company agrees with these efforts and participated in the partnership in April 2024, setting the following goals to promote a circular economy.

Category	Targets for "resource circulation" in the circular economy
Title and numbers	Number of environmentally conscious products launched 30
Overview	The Denka Group has established its own resource recycling system brand, D-NODE™, to achieve a sustainable society. Through D-NODE™, we aim to launch 30 types of environmentally friendly products containing styrene by recycling using appropriate methods including chemical recycling and material recycling, and by utilizing biomass materials (including mass balance methods).
Achievement date of targets	March 31, 2031

※ D-NODE is a trademark of Denka Company Limited.

ISCC PLUS certification

ISCC PLUS certification is an international certification system that guarantees the management and reliability of products using sustainable resources such as recycled materials and biomass. With this certification, we can now handle products made from sustainable raw materials using the mass balance approach¹. We believe that ensuring the reliability of the mass balance approach and conducting appropriate management and operation play an important role in promoting resource recycling, and the Denka Group will continue to comply with the requirements of ISCC PLUS certification in accordance with the latest ISCC regulations.

Company Name/Location	Category	Products	Acquisition date of certification
DENKA COMPANY LIMITED Chiba Plant	bio, bio-circular, circular	Styrene monomer Styrene-based resin Styrene-based sheet	May 2024
DENKA COMPANY LIMITED Isesaki Plant (Ota)	bio, bio-circular, circular	Styrene-based sheet	August 2025
Denka Singapore Pte Ltd	bio, bio-circular, circular	Styrene resin	January 2023
Denka Polymer Kabushiki Kaisha Goi Plant, Katori Plant, Sakura Plant	bio, bio-circular, circular	Food containers	Goi: May 2024 Katori: November 2024 Sakura: December 2024

※1 The mass balance approach is a distribution management method that allocates the characteristics of products to be produced according to the input amount of specific raw materials when different raw materials (e.g., petroleum-based raw materials and recycled raw materials from waste plastics) are mixed.

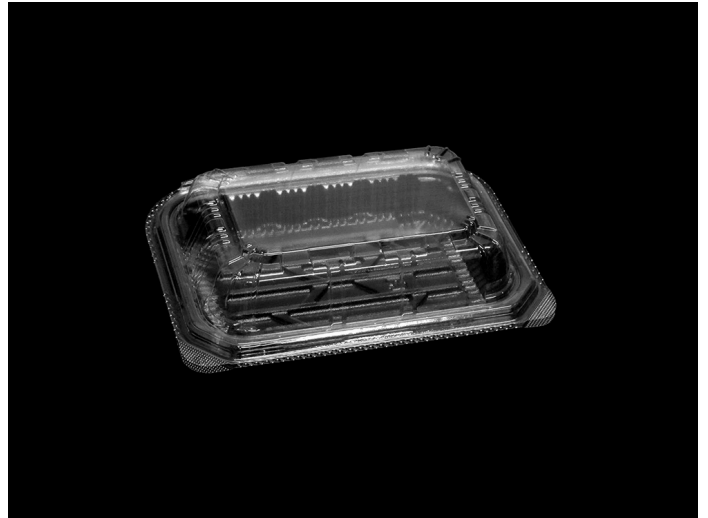
› [For the status of obtaining other external certifications, click here.](#)

Environmentally-friendly containers

Denka Polymer, which manufactures and sells plastic food containers, is promoting the development of environmentally friendly containers using Denka's developed "Biomass BOPS" (mass balance method ^(※1)) and BOPS sheet "Eco-Clear", which has achieved a 35% reduction in weight from A-PET.



Biomass BOPS



High strength BOPS sheet

➤ [SDGs/List of socially and environmentally conscious products](#)

Environmental Accounting

Environmental Conservation Costs

Category		Details of Effects	Scope	Unit	FY2023 Environmental Conservation Costs		FY2024 Environmental Conservation Costs	
					Investment Amount	Cost	Investment Amount	Cost
1) Cost around our business area		(Subtotal)	Non-consolidated sites	million yen	843	2,910	1,010	3,111
Breakdown	1) Pollution prevention costs	Measures to reduce environmental burden	Non-consolidated sites	million yen	662	2,329	727	2,364
	②Costs for earth environmental preservation	Energy-saving equipment	Non-consolidated sites	million yen	95	296	126	330
	3) Resource recycling costs	Efficient use of resources	Non-consolidated sites	million yen	86	286	157	417
2) Upstream and downstream costs		Change of raw materials etc.	Non-consolidated sites	million yen	0	0	0	0
3) Cost of management activities		ISO maintenance management, educational activities, etc.	Non-consolidated sites	million yen	2	36	2	54
4) Research and development costs		Development of energy-saving products	Non-consolidated sites	million yen	250	1,085	64	865
5) Social activity costs		Communication with Local Communities	Non-consolidated sites	million yen	0	4	200	404
6) Cost of environmental damage activities	Natural restoration, pollution load charge system		Non-consolidated sites	million yen	27	79	0	74
	Pollution load charge		Non-consolidated sites	million yen	0	69	0	65
7) Others			Non-consolidated sites	million yen	0	0	0	0
Total			Non-consolidated sites	million yen	1,122	4,113	1,276	4,507

※ Non-consolidated sites: 8 locations (80% of sales of Denka products)

Environmental Conservation Effects

We have aggregated data on environmental burden. For details, please refer to the [Environmental Performance Data](#) on this website.

Items of Environmental Burden	Scope	Unit	FY2021 Results	FY2022 Results	FY2023 Results	FY2024 Results	Previous fiscal year difference	FY2025 Targets
CO ₂ emissions (from energy and non-energy sources)	Non-consolidated sites	10,000 tons	197	185	158	177	19	—
SOx Emissions	Non-consolidated sites	ton	46	33	42	41	-1	31
NOx Emissions	Non-consolidated sites	ton	3,393	3,747	3,579	3,059	-520	1,551
Soot and Dust Emissions	Non-consolidated sites	ton	109	68	97	84	-13	37
COD (BOD) Emissions	Non-consolidated sites	ton	181	275	250	317	67	323
Water used	Non-consolidated sites	1,000 tons	58,257	58,451	58,889	62,755	3,866	64,313
PRTR Substances Emissions	Non-consolidated sites	ton	83	61	78	86	8	75

Items of Environmental Burden	Scope	Unit	FY2021 Results	FY2022 Results	FY2023 Results	FY2024 Results	Previous fiscal year difference	FY2025 Targets
Amount of industrial waste	Non-consolidated sites	1,000 tons	121	122	105	119	14	235
Final disposal amount of waste	Non-consolidated sites	ton	63	50	46	56	10	48
CO ₂ emissions in transportation	Non-consolidated sites	1,000 tons	34	132	110	112	2	—

※ Non-consolidated sites: 8 locations (80% of sales of Denka products)

Economic Effects

The substantial economic effects accompanying environmental conservation measures are the following: sale of valuable materials and energy cost reduction due to energy conservation.

Catagory	Item	Details of Effects	Scope	Unit	FY2023 Economic Impact	FY2024 Economic Effects
Profits	Business income from recycling of waste or used products generated from principal business activities	Sale of valuable materials	Non-consolidated sites	million yen	620	886
Cost reductions	Reduction of energy costs by energy conservation	Energy-saving effect	Non-consolidated sites	million yen	256	70
	Reduction of waste treatment costs due to resource conservation or recycling	Effective utilization of resources	Non-consolidated sites	million yen	68	6
Total			Non-consolidated sites	million yen	944	962

※ Non-consolidated sites: 8 locations (80% of sales of Denka products)

Overview of Environmental Impacts

Data range: Total of 8 sites of Denka (80% of Denka products sales are manufactured at these sites)

INPUT				Business Activities	OUTPUT				
	2021	2022	2023	Denka Six Plants		2021	2022	2023	
 Fuels (thousand kl)	339	310	467		 Products				
 Electricity (billion kWh)	1.33	1.24	1.30		 Air emissions	CO ₂ (from energy resources) (tons)	1,110,000	1,030,000	886,000
 Water (million tons)	58.26	58.45	58.89			CO ₂ (from non-energy resources) (tons)	850,000	820,000	696,000
 Raw Materials						SOx (tons)	46	33	42
 Total energy consumption (Electricity + Fuels) (GWh)	1,663	1,614	1,304			NOx (tons)	3,393	3,797	3,579
						Soot and Dust (tons)	109	68	97
						PRTR substances (tons)	52	40	63
					 Water discharges	COD (tons)	181	275	250
						PRTR substances (tons)	31	21	15
					 Soil discharges	PRTR substances (tons)	0	0	0
					 Waste generation	Waste generati ^o d (thousand tons)	121	122	105
						Recycled in-house (thousand tons)	91	92	78
						Recycled externally (thousand tons)	21	21	20
						Waste Reduction (water removal, incineration) (thousand tons)	7	9	7
						Final disposal (as landfill) (tons)	63	50	48

※ The final disposal amount (landfill) for FY2024 does not include the figures for Denka headquarters.

Fiscal 2024 Environmental Performance Data

※ For definitions of data ranges, please refer to [here](#).

※ **Items marked with O** have been verified by an independent third party. The independent verification certificates can be viewed [here](#).

Greenhouse Gas Emissions

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
○ Scope 1 (Emissions) ※1			Consolidated	t-CO 2 /year	162.0	155.9	139.3	137.4	110.0	78
○ Scope 2 (Emissions) ※1			Consolidated	t-CO 2 /year	52.6	47.6	35.9	39.8	26.3	20
○ Scope 1+2 (emissions)	Medium- to long-term targets for reduction of greenhouse gas emissions		Consolidated	t-CO 2 /year	214.6	203.5	175.2	177.2	136.3	98
	Actual results compared to fiscal 2013 (Scope 1+2)		Consolidated	%	87%	82%	71%	72%	55%	40%
Scope 3 (Emissions)										
	○ Cate1	Purchased Goods and Services	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	815,045	846,856	779,585	873,385	-	-
	Cate2	Capital goods	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	124,520	116,783	66,623	134,950	-	-
	Cate3	Energy-related activities not included in Scope 1 and 2	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	146,994	128,465	109,607	116,373	-	-
	Cate4	Upstream transportation and distribution	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	92,546	131,555	110,136	112,214	-	-
	Cate5	Waste generated through business activities	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	18,408	18,398	17,989	13,665	-	-
	○ Cate6	Business trips	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	531	546	563	568	-	-
	○ Cate7	Employee commuting	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	1,652	1,705	1,760	1,770	-	-
	Cate8	Upstream leased assets	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO 2 /year	-	-	-	-	-	-

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Cate9	Downstream Transportation and distribution	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	33,709	0	0	756	-	-
	Cate10	Processing of sold products	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	-	-	-	-	-	-
	Cate11	Use of sold products	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	-	-	-	-	-	-
	Cate12	End of life treatment of sold products	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	595,310	347,466	328,816	331,087	-	-
	Cate13	Downstream Leased assets	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	-	-	-	-	-	-
	Cate14	Franchises	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	-	-	-	-	-	-
	Cate15	Investments	Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	-	-	-	-	-	-
	Total		Non-consolidated sites / Domestic & Overseas Key production facilites	t-CO ₂ /year	1,828,715	1,591,228	1,415,079	1,584,767	-	-
Scope 3 (Percentage)										
	○ Cate1	Purchased Goods and Services	Non-consolidated sites / Domestic & Overseas Key production facilites	%	44.6%	53.2%	55.1%	55.1%	-	-
	Cate2	Capital goods	Non-consolidated sites / Domestic & Overseas Key production facilites	%	6.8%	7.3%	4.7%	8.5%	-	-
	Cate3	Energy-related activities not included in Scope 1 and 2	Non-consolidated sites / Domestic & Overseas Key production facilites	%	8.0%	8.1%	7.7%	7.3%	-	-
	Cate4	Upstream transportation and distribution	Non-consolidated sites / Domestic & Overseas Key production facilites	%	5.1%	8.3%	7.8%	7.1%	-	-

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Cate5	Waste generated through business activities	Non-consolidated sites / Domestic & Overseas Key production facilities	%	1.0%	1.2%	1.3%	0.9%	-	-
	○ Cate6	Business trips	Non-consolidated sites / Domestic & Overseas Key production facilities	%	0.0%	0.0%	0.0%	0.0%	-	-
	○ Cate7	Employee commuting	Non-consolidated sites / Domestic & Overseas Key production facilities	%	0.1%	0.1%	0.1%	0.1%	-	-
	Cate8	Upstream leased assets	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Cate9	Downstream Transportation and distribution	Non-consolidated sites / Domestic & Overseas Key production facilities	%	1.8%	0.0%	0.0%	0.0%	-	-
	Cate10	Processing of sold products	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Cate11	Use of sold products	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Cate12	End of life treatment of sold products	Non-consolidated sites / Domestic & Overseas Key production facilities	%	32.6%	21.8%	23.2%	20.9%	-	-
	Cate13	Downstream Leased assets	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Cate14	Franchises	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Cate15	Investments	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	-	-	-	-
	Total		Non-consolidated sites / Domestic & Overseas Key production facilities	%	100%	100%	100%	100%	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Estimated Volume of Fluorocarbon leakage ※2		Non-consolidated sites	t-CO ₂	790	771	5,190	303	-	-
O CO ₂ emissions (energy/non-energy) (Scope1+Scope2)	Energy resources	Non-consolidated sites	t-CO ₂ /year	1,116	1,029	862	1,118	-	-
	Non-energy resources	Non-consolidated sites	t-CO ₂ /year	854	818	696	655	-	-

▶ Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions

※1 Oversea facilities are not included.

※2 Applicable devices: Class 1 specified products (commercial air conditioning and refrigeration equipment) as stipulated by the Law on the Regulation of Freon Emissions

Number of owned devices: 6,748 (4,187 air conditioning devices/2,561 refrigeration devices) as of June 30, 2025

Estimated Volume of Leakage: Carbon dioxide equivalent

Renewable Energy

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Breakdown of Energy Consumption by Source	Hydroelectric	Non-consolidated sites	%	-	32	39	33	37	-
	Biomass	Non-consolidated sites	%	-	1	1	1	0	-
	Waste heat power generation	Non-consolidated sites	%	-	1	1	0	0	-
	Solar power generation	Non-consolidated sites	%	-	-	-	-	0.1	-
	Fossil fuels	Non-consolidated sites	%	-	21	23	23	24	-
	Purchased electricity	Non-consolidated sites	%	-	45	36	43	40	-
	Total	Non-consolidated sites	%	0	100%	100%	100%	100%	-
Breakdown of Energy Consumption by Source (energy/non-energy)	Renewable energy electricity mix + electricity mix with non-fossil fuel certificates / Electricity consumption	Non-consolidated sites	%	33%	33%	40%	33%	37%	76%
In-house Power Generation Capacity (maximum output)	hydroelectric power *3	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	126.34	140.29	140.29	140.29	140.29	140.29
	Solar power generation (including sales outside of the FIT scheme)	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	2.99	2.99	2.99	3.89	5.79	9.71
	Waste heat power generation/Biomass	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	11.1	11.1	11.1	11.1	0	0
	Thermal power generation	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	62.405	66.305	66.305	66.305	66.305	66.305
	Total renewable energy generation capacity	Non-consolidated sites / Domestic & Overseas Key	MW	132.33	146.28	146.28	147.18	146.08	150

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
		production facilities							
	Total on-site power generation capacity	Non-consolidated sites / Domestic & Overseas Key production facilities	MW	202.8	220.7	220.7	221.6	212	216
Fiscal Year 2022 Energy Consumption	Renewable energy consumption	Non-consolidated sites	MWh	541,445	530,387	519,619	473,146	518,853	-
	Amount of non-renewable energy consumed	Non-consolidated sites	MWh	1,121,524	1,083,241	783,894	974,399	898,393	-
	Total	Non-consolidated sites	MWh	1,662,969	1,613,628	1,303,513	1,447,545	1,417,246	-
Energy conservation	Compared to previous year (Target: 99% compared to previous year)	Non-consolidated sites	%	101%	101%	101.5%	98%	99% compared to previous year	99% compared to previous year

➤ Promoting the Use of Clean Energy

※3 Includes 50% of the hydroelectric power plants of the Kurobe River Power (50% owned by the Company)

Overview of Environmental Impacts (Non-consolidated sites)

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Fuel		Non-consolidated sites	1,000 L	339	310	315	310	260	-
Electricity (Purchased + Hydro) ※4		Non-consolidated sites	100 million kWh	13	12	10	11	10.82	-
Energy consumption	Electricity + fuel (combined)	Non-consolidated sites	1,000 L	537	490	465	491	432.2	-
Water		Non-consolidated sites	10,000 tons	5,826	5,845	5,889	6,275	6,431	-
Waste generation		Non-consolidated sites	1,000 tons	121	122	105	119	236	-
Amount of effective use of internal recycling		Non-consolidated sites	1,000 tons	91	92	78	78	56	-
Amount of externally recycled resources		Non-consolidated sites	1,000 tons	21	21	20	33	173	-
Reduction (dehydration, incineration, etc.)		Non-consolidated sites	1,000 tons	7	9	7	7	7	-
Final disposal amount (landfill)		Non-consolidated sites	ton	63	50	48	56	48	-

➤ Overview of Environmental Impacts

※4 Excluding heating value

Water Resources

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Water intake (megalitres)	Fresh surface water	Non-consolidated sites	Megaliters	32,889	32,700	33,035	35,038	35,851	-
	Groundwater	Non-consolidated sites	Megaliters	24,832	25,204	25,456	27,238	27,993	-
	Third-party water sources (municipal water supply)	Non-consolidated sites	Megaliters	536	547	482	479	482	-
	Water intake from water-stressed areas	Non-consolidated sites	Megaliters	0	0	0	0	0	-
	Total	Non-consolidated sites	Megaliters	58,257	58,451	58,973	62,755	64,326	-
Usage amount (thousand m ³)	Non-Consolidated	Non-consolidated sites	1,000 m ³	58,257	58,451	58,889	62,755	64,331	-
	Domestic / Overseas Key production facilities	Domestic / Overseas Key production facilities	1,000 m ³	50,464	47,166	64,952	65,247	65,274	-
	Total	Non-consolidated sites / Domestic & Overseas Key production facilities	1,000 m ³	108,721	105,617	123,841	128,002	129,605	-
Total drainage volume		Non-consolidated sites	Megaliters	55,336	56,107	56,642	60,280	61,648	-
Number of sites with high water risk and water stress		Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	4	4	4	4	-	-
Percentage of sites with high water risk and water stress (consolidated)		Non-consolidated sites / Domestic & Overseas Key production facilities	%	16%	16%	16%	16%	-	-

[> Preservation of Water Resources](#)

Substances of Environmental Burden

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
CO ₂ emissions	Energy resources	Key domestic production facilities	1,000 tons	1,116	1,029	862	1,117	-	-
	Non-energy resources	Key domestic production facilities	1,000 tons	854	818	696	653	-	-
SO _x (Sulfur Oxides)		Non-consolidated sites	ton	46	33	42	41	31	-
		Domestic / Overseas Key production facilities	ton	132	126	85	82	82	-
NO _x (Nitrogen oxides)		Non-consolidated sites	ton	3,393	3,747	3,579	3,059	1,551	-
		Domestic / Overseas Key production facilities	ton	827	794	491	368	419	-

Item	Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Soot and Dust Emissions	Non-consolidated sites	ton	109	68	97	84	37	-
	Domestic / Overseas Key production facilities	ton	14	16	13	12	13	-
COD (BOD) Emissions	Non-consolidated sites	ton	181	275	250	317	323	-
	Domestic / Overseas Key production facilities	ton	6	6	6	5	5	-
PRTR-subject substances	Non-consolidated sites	ton	83	61	78	86.0	75	-
	Key domestic production facilities	ton	11	10	9	5	3	-
VOC (Volatile Organic Compounds)	Non-consolidated sites	ton	-	-	-	52	-	-
	Domestic / Overseas Key production facilities	ton	-	-	-	-	-	-

➤ Overview of Environmental Impacts

Waste

Item	Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Final disposal volume	Non-Consolidated	ton	63	50	48	56	48	-
	Key domestic production facilities	ton	38	18	16	32	28	-
	Overseas Key Production Facilities	-	-	-	-	-	-	-
Emission rate (Final disposal amount/Waste generated amount×100)≤1%	Main unit ※5	%	0.05	0.04	0.05	0.05	0.02	-
	Principal manufacturing sites in Japan ※6	%	0.08	0.06	0.06	0.07	0.03	-
Amount of hazardous waste	Non-Consolidated	ton	-	-	-	1841.29	-	-
	Key domestic production facilities	ton	-	-	-	0	-	-

➤ Efforts to Promote Resource Circulation

※5 Includes the head office.

※6 Head office is not included.

Breakdown of emissions and transfers in FY2024

Substances subject to the PRTR Law with emissions or transfer amounts of 1 ton or more

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Acrylic acid n-butyl (Designated number 1-009)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	1	2	-	-
Acrylonitrile (1-011)	Air	Non-consolidated sites	ton	-	-	0	2	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	5	6	-	-
Acetaldehyde (1-017)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	2	3	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	53	-	-
Aniline (1-020)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	1	2	-	-
Ethylbenzene (1-073)	Air	Non-consolidated sites	ton	-	-	2	3	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	18	22	-	-
Silver and its soluble compounds (1-105)	Air	Non-consolidated sites	ton	-	-	0	0	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	106	-	-
N,N-Dimethylformamide (1-264)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	11	26	-	-
Styrene (1-275)	Air	Non-consolidated sites	ton	-	-	15	17	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	59	98	-	-
Water-soluble copper salt (1-314)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	2	3	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	0	-	-
Sodium dodecyl sulfate (1-318)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	0	-	-
Toluene (1-347)	Air	Non-consolidated sites	ton	-	-	13	13	-	-
	Water-based	Non-consolidated sites	ton	-	-	1	1	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	31	42	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Carbon disulfide (1-361)	Air	Non-consolidated sites	ton	-	-	1	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	2	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	0	-	-
Hydrofluoric acid and its soluble salts (1-414)	Air	Non-consolidated sites	ton	-	-	1	1	-	-
	Water-based	Non-consolidated sites	ton	-	-	1	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	28	32	-	-
N-Hexane (1-436)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	1	1	-	-
Benzene (1-452)	Air	Non-consolidated sites	ton	-	-	-	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	-	0	-	-
	Soil	Non-consolidated sites	ton	-	-	-	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	-	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	-	7	-	-
Boron and its compounds (1-458)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	9	8	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	8	10	-	-
Manganese and its compounds (1-465)	Air	Non-consolidated sites	ton	-	-	-	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	-	0	-	-
	Soil	Non-consolidated sites	ton	-	-	-	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	-	0	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	-	25	-	-
Methyl methacrylate (MMA) (1-469)	Air	Non-consolidated sites	ton	-	-	2	3	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	6	8	-	-
Inorganic cyanide compounds (excluding complex salts and cyanate salts.) (1-164)	Air	Non-consolidated sites	ton	-	-	-	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	-	0	-	-
	Soil	Non-consolidated sites	ton	-	-	-	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	-	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	-	2	-	-
Nickel compounds (1-355)	Air	Non-consolidated sites	ton	-	-	-	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	-	0	-	-
	Soil	Non-consolidated sites	ton	-	-	-	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	-	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	-	2	-	-
CYCLOHEXANE (1-176)	Air	Non-consolidated sites	ton	-	-	23	14	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	30	40	-	-
Silicon carbide (1-280)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	10	6	-	-
Methyl isobutyl ketone (1-472)	Air	Non-consolidated sites	ton	-	-	3	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	90	110	-	-
N-Methyl-2-pyrrolidone (1-489)	Air	Non-consolidated sites	ton	-	-	0	0	-	-
	Water-based	Non-consolidated sites	ton	-	-	0	0	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	0	0	-	-
Total (t/year) ※7	Air	Non-consolidated sites	ton			61	59		
	Water-based	Non-consolidated sites	ton	-	-	15	18	-	-
	Soil	Non-consolidated sites	ton	-	-	-	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	-	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	300	600	-	-
Dioxins (mg-TEQ) (1-278) ※8	Air	Non-consolidated sites	ton	-	-	156	110	-	-
	Water-based	Non-consolidated sites	ton	-	-	8.4	130	-	-
	Soil	Non-consolidated sites	ton	-	-	0	0	-	-
	Landfill	Non-consolidated sites	ton	-	-	0	0	-	-
	Distance traveled (offices)	Non-consolidated sites	ton	-	-	5.9	4	-	-

※7 The total does not match because the reporting standard is 1 ton or more.

※8 The above total does not include dioxins.

Environmental Accounting

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Environmental conservation costs and investments	1) Cost within business area	Pollution control costs	Non-consolidated sites	million yen	-	-	662	727	-	-
		Cost for earth environment conservation	Non-consolidated sites	million yen	-	-	95	126	-	-
		Recycling cost	Non-consolidated sites	million yen	-	-	86	157	-	-
		Subtotal	Non-consolidated sites	million yen	0	0	843	1010	0	0
	2) Upstream and downstream costs		Non-consolidated sites	million yen	-	-	-	-	-	-
	3) Management activity costs		Non-consolidated sites	million yen	-	-	2	2	-	-
	4) Research and development costs		Non-consolidated sites	million yen	-	-	250	64	-	-
	5) Social activity costs		Non-consolidated sites	million yen	-	-	-	200	-	-
	6) Cost of environmental damage activities		Non-consolidated sites	million yen	-	-	27	-	-	-
	(Internal)	Company pollution load amount levy	Non-consolidated sites	million yen	-	-	-	-	-	-
	7) Other		Non-consolidated sites	million yen	-	-	-	-	-	-
	Total		Non-consolidated sites	million yen	-	-	1,122	1,276	-	-
Environmental conservation costs	1) Cost within business area	Pollution control costs	Non-consolidated sites	million yen	-	-	2,329	2,364	-	-
		Cost for earth environment conservation	Non-consolidated sites	million yen	-	-	296	330	-	-
		Recycling cost	Non-consolidated sites	million yen	-	-	286	417	-	-
		Subtotal	Non-consolidated sites	million yen	-	-	2,910	3,111	-	-
	2) Upstream and downstream costs		Non-consolidated sites	million yen	-	-	-	-	-	-
	3) Management activity costs		Non-consolidated sites	million yen	-	-	36	54	-	-
	4) Research and development costs		Non-consolidated sites	million yen	-	-	1,085	865	-	-
	5) Social activity costs		Non-consolidated sites	million yen	-	-	4	404	-	-
	6) Cost of environmental damage activities		Non-consolidated sites	million yen	-	-	79	74	-	-
	(Internal)	Company pollution load amount levy	Non-consolidated sites	million yen	-	-	-	65	-	-
	7) Other		Non-consolidated sites	million yen	-	-	-	-	-	-
	Total		Non-consolidated sites	million yen	-	-	4,113	4,507	-	-
Environmental Conservation Effects	CO ₂ emissions (total of energy and non-energy)		Non-consolidated sites	10,000 tons	197	185	158	177	-	-
	SOx Emissions		Non-consolidated sites	ton	46	33	42	41	31	-
	NOx Emissions		Non-consolidated sites	ton	3,393	3,747	3,579	3,059	1,551	-

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
	Soot and Dust Emissions		Non-consolidated sites	ton	109	68	97	84	37	-
	COD (BOD) Emissions		Non-consolidated sites	ton	181	275	250	317	323	-
	Water used		Non-consolidated sites	1,000 tons	58,257	58,451	58,889	62,755	64,313	-
	PRTR Substances Emitted		Non-consolidated sites	ton	83	61	78	86	75	-
	Amount of industrial waste		Non-consolidated sites	1,000 tons	121	122	105	119	235	-
	Final disposal amount of waste		Non-consolidated sites	ton	63	50	46	56	48	-
	CO ₂ emissions in transportation		Non-consolidated sites	1,000 tons	34	132	110	112	-	-
Economic Effects	Profits	Recycling business income from recycling of waste or used products generated from principal business activities	Non-consolidated sites	million yen	-	-	620	886	-	-
	Cost reductions	Reduction of energy costs by energy conservation	Non-consolidated sites	million yen	-	-	256	70	-	-
	Cost reductions	Reduction of waste treatment costs due to resource conservation or recycling	Non-consolidated sites	million yen	-	-	68	6	-	-
	Total		Non-consolidated sites	million yen	-	-	944	962	-	-

Management Systems

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	2025 Targets	2030 Targets
Environment	Number of ISO14001 certified sites	Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	-	-	15	15	-	-
	Number of certification acquisition sites based on ISO14001	Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	-	-	1	1	-	-
	Number of major production sites (calculation)	Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	-	-	25	25	-	-
	Company-wide coverage rate	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	64%	64%	-	-
Quality	Number of ISO9001 certified sites	Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	-	-	21	21	-	-
	Number of major production sites (calculation)	Non-consolidated sites / Domestic & Overseas Key production facilities	Number of sites	-	-	25	25	-	-
	Company-wide coverage rate	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	84%	84%	-	-

› Acquisition status of external certification

Non-consolidated Sites:8 locations (80% of Denka product sales produced)

Non-consolidated sites / Domestic & Overseas Key Group Production Facilities25 sites in total (Manufacturing 90% or more of sales of Denka products)

Domestic & Overseas Key Production Group Facilities17 sites in total (excluding main business offices)

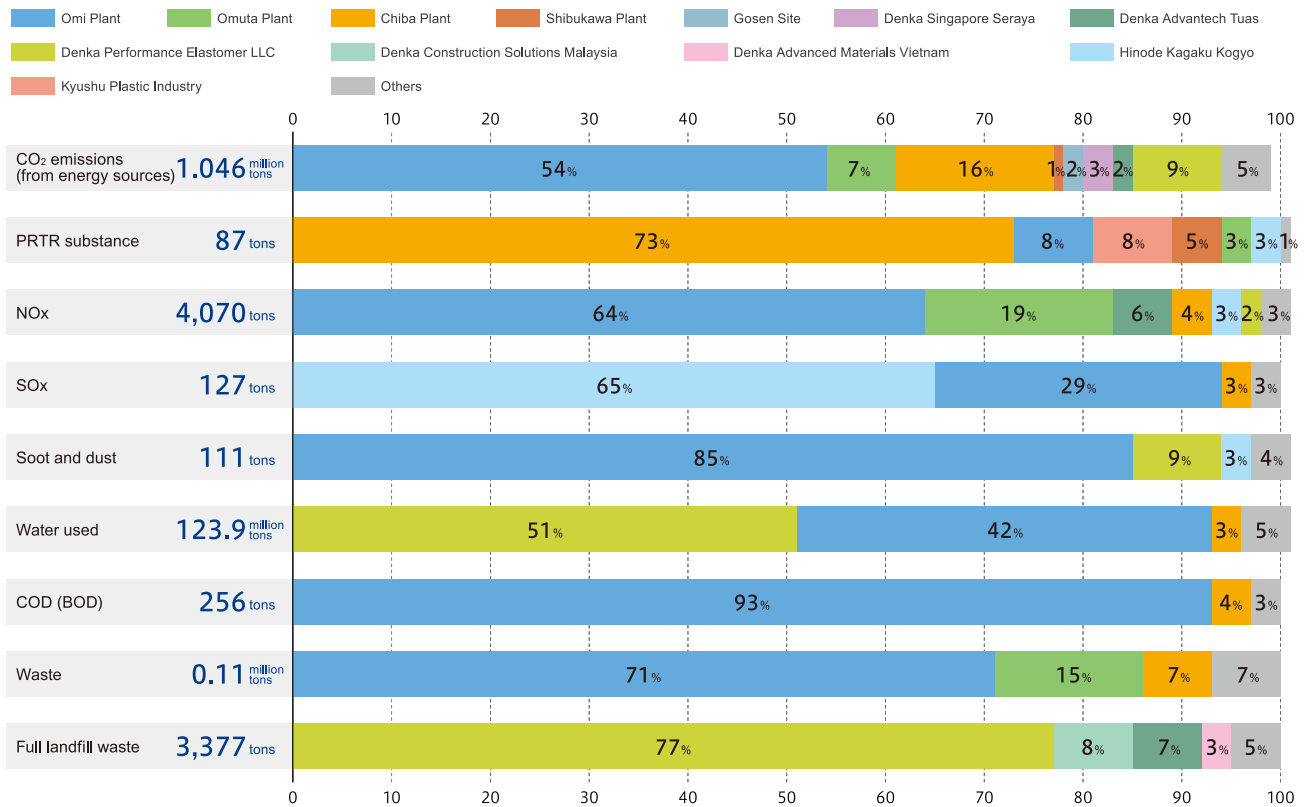
Key Domestic Production Facilities:6 bases in total

Overseas Key Group Production Facilities:11 bases in total

Consolidated:38 consolidated subsidiaries in Japan and overseas

Office-Specific Performance Data

Fiscal 2024 Emissions of Main Substances and Percentage of Water Usage



Head office, sales offices

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	-	-	-	0.23	0.23	-
Water used ※	1,000 m ³	-	-	-	0.03	0.03	-
Amount of industrial waste ※	ton	-	-	-	6.34	0.99	-
Final disposal amount of waste ※	ton	-	-	-	2.11	0.99	-

※ Head office only

Omi Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	60	72	71	56	58	38
(CO ₂ emissions compared to FY2013 base)		0.72	0.85	0.85	0.67	0.69	0.45
PRTR-subject substances	ton	7	14	10	7	11	8
NO _x	ton	2,860	2,462	2,905	2,631	2,229	665
SO _x	ton	35	37	26	37	34	24
Soot and Dust Emissions	ton	64	107	66	95	82	34
Water used	1,000 m ³	47,465	51,063	51,919	52,543	56,325	57,654
COD (BOD) Emissions	ton	166	166	264	237	306	311
Amount of industrial waste	ton	70,599	88,679	92,094	77,750	94,142	212,426
Final disposal amount of waste	ton	0	0	0	0	0	0

Chiba Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO 2 emissions (energy resources)	10,000 tons	22	24	18	17	19	19
(CO 2 emissions compared to FY2013 base)		0.67	0.72	0.55	0.52	0.58	0.58
PRTR-subject substances	ton	52	60	44	64	68	60
NOx	ton	156	162	127	149	163	160
SOx	ton	5	7	6	4	6	6
Soot and Dust Emissions	ton	2	1	1	1	1	2
Water used	1,000 m 3	3,615	3,742	3,174	3,168	3,300	3,485
COD (BOD) Emissions	ton	10	14	10	11	10	10
Amount of industrial waste	ton	10,582	11,909	9,310	8,091	8,284	8,990
Final disposal amount of waste	ton	7	4	2	2	2	2

Omuta Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO 2 emissions (energy resources)	10,000 tons	10	10	8	8	8	11
(CO 2 emissions compared to FY2013 base)		0.74	0.73	0.60	0.63	0.63	0.87
PRTR-subject substances	ton	4	4	3	3	3	3
NOx	ton	659	758	709	794	662	721
SOx	ton	1	0	0	0	0	0
Soot and Dust Emissions	ton	1	1	1	1	1	2
Water used	1,000 m 3	1,320	1,448	1,364	1,266	1,208	1,270
COD (BOD) Emissions	ton	1	1	1	1	1	1
Amount of industrial waste	ton	19,012	17,587	17,703	16,861	14,307	12,065
Final disposal amount of waste	ton	13	47	26	22	20	15

Shibukawa Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO 2 emissions (energy resources)	10,000 tons	0.8	1	0.8	0.7	0.8	0.8
(CO 2 emissions compared to FY2013 base)		1.16	1.45	1.17	1.08	1.18	1.17
PRTR-subject substances	ton	5	5	3	4	4	4
NOx	ton	9	10	6	4	4	4
SOx	ton	1	1	1	1	1	1
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m 3	1,302	1,302	1,305	1,310	1,304	1,304
COD (BOD) Emissions	ton	2	2	1	1	1	1
Amount of industrial waste	ton	676	686	559	453	331	298
Final disposal amount of waste	ton	33	0	0	0	0	0

Ofuna Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO 2 emissions (energy resources)	10,000 tons	0.6	0.8	0.6	0.5	0.5	-
(CO 2 emissions compared to FY2013 base)		0.87	1.01	0.78	0.71	0.71	-
PRTR-subject substances	ton	1	1	0	1	0	0
NOx	ton	1	1	0	1	1	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m 3	39	36	36	31	26	18
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	343	263	192	209	236	187
Final disposal amount of waste	ton	1	1	1	1	3	2

Iseaki Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	1.5	1.9	1.4	1.3	1.5	1.5
(CO ₂ emissions compared to FY2013 base)		0.85	1.1	0.79	0.73	0.85	0.85
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	408	400	380	356	380	400
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	690	632	276	236	249	430
Final disposal amount of waste	ton	0	0	0	0	0	0

Gosen Site (former Denka Seiken)

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	2.3	2.3	2.3	1.9	1.9	2.1
(CO ₂ emissions compared to FY2013 base)		1.44	1.44	1.48	1.23	1.23	1.36
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	1	1	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	214	260	266	205	202	202
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	1,118	1,102	1,488	1,161	1,077	1,077
Final disposal amount of waste	ton	18	10	20	19	24	24

Denka Innovation Center (Laboratory)

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.1	0.2	0.2	0.2	0.2	0.2
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	7	6	7	9	9	9
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	84	70	66	87	102	102
Final disposal amount of waste	ton	0	0	1	1	7	7

Denka Singapore Merbau Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.4	0.3	0.4	0.4	0.4	0.4
NOx	ton	0.5	0.5	0.5	0.5	0.7	0.9
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	59	62	56	50	132	130
COD (BOD) Emissions	ton	0.1	0.1	0.1	0.1	0.7	0.7
Amount of industrial waste	ton	194	130	279	249	362	361
Final disposal amount of waste	ton	0	0	0	0	20	18

Denka Advanced Materials Vietnam Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.2	0.4	0.4	0.4	1.0	1.0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	18	21	25	25	23	23
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	115	261	276	288	274	273
Final disposal amount of waste	ton	38	85	76	102	77	77

Denka Singapore Seraya Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	3.7	3.5	3.0	3.0	3.2	2.9
NOx	ton	4.7	4.7	3.9	4.3	3.8	4.6
SOx	ton	0.9	0.9	0.7	0.8	0.7	0.9
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	188	149	115	136	142	152
COD (BOD) Emissions	ton	2.8	2.7	2.4	2.4	2.3	2.4
Amount of industrial waste	ton	1,563	1,027	749	693	710	657
Final disposal amount of waste	ton	36	27	17	19	20	18

Denka Construction Solutions Malaysia

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.02	0.02	0.02	0.02	0.03	0.02
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	3.4	3.8	4	3	3	4
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	255	214	215	305	509	464
Final disposal amount of waste	ton	255	211	210	300	504	458

Denka Advantech Tuas Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	1.4	1.4	1.7	1.6	1.2	1.0
NOx	ton	386.4	586.8	516.7	296	193.9	227.5
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	62	102	88	74	57	67
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	219	281	261	277	231	271
Final disposal amount of waste	ton	200	263	243	261	216	253

Denka Performance Elastomer

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	9.5	7.6	9.3	10.1	13.6	-
NOx	ton	84	90	104	95	77	95
SOx	ton	1	1	1	1	1	1
Soot and Dust Emissions	ton	9	9	10	9	8	9
Water used	1,000 m ³	53,621	47,892	44,909	62,815	63,014	63,014
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	1,099	1,216	1,826	2,204	1,889	2,204
Final disposal amount of waste	ton	1,079	1,180	1,758	2,617	1,614	1,844

Denka Advantech South Plant

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.1	0.3	0.2	0.1	0.2	0.2
NOx	ton	0.7	1.6	0.8	1	0.4	0.5
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0.1	0	0.0	0.0	0.0
Water used	1,000 m ³	5	8	6	6	6	8
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	154	189	139	146	152	197
Final disposal amount of waste	ton	10	20	17	7	8	10

Denka Advanced Materials (Suzhou)

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.1	0.1	0.1	0.1	0.0	0.1
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	1.7	1.5	1.3	1.3	1.3	1.4
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	0.5	0.5	0.4	0.9	0.9	0.8
Final disposal amount of waste	ton	0.03	0.02	0.02	0.03	0.03	0.03

Denka Inorganic Materials (Tianjin)

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.00	0.01	0.01	0.01	0.01	0.01
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	1.0	0.7	0.7	0.6	0.9	0.8
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	0.6	0.6	0.5	0.5	2.8	4.0
Final disposal amount of waste	ton	0.03	0.03	0.03	0.03	0.00	0.00

Denka Chemicals Development Suzhou

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.02	0.02	0.01	0.02	0.02	0.02
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	0.4	0.5	0.4	0.5	0.4	0.4
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	16	19	20	9	1	2
Final disposal amount of waste	ton	2	0	7	7	0	0

Denka Electronic Materials Dailan

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.07	0.08	0.09	0.11	0.11	0.11
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	0.3	0.2	0.2	0.2	0.3	0.3
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	6.6	8.0	5.8	4.8	4.3	3.2
Final disposal amount of waste	ton	0.2	0.2	0.2	0.1	0.1	0.1

Hinode Kagaku Kogyo

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	1.9	1.8	1.8	1.2	1.3	1.3
PRTR-subject substances	ton	2	4	3	2	3	2
NOx	ton	135	119	139	74	73	72
SOx	ton	147	129	123	83	81	80
Soot and Dust Emissions	ton	7	5	6	4	4	4
Water used	1,000 m ³	1,233	1,360	1,101	956	1,013	1,000
COD (BOD) Emissions	ton	2	2	1	1	1	1
Amount of industrial waste	ton	56	36	36	114	267	350
Final disposal amount of waste	ton	4	3	3	4	3	3

Denka Azumin

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.5	0.5	0.5	0.4	0.3	0.3
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	20	24	29	20	20	20
SOx	ton	1	1	1	1	0	0
Soot and Dust Emissions	ton	2	0	0	0	0	0
Water used	1,000 m ³	603	602	602	604	603	604
COD (BOD) Emissions	ton	1	1	2	2	2	2
Amount of industrial waste	ton	80	66	47	45	53	53
Final disposal amount of waste	ton	0.2	0.3	0.2	0.3	0.5	0.5

Denka Polymer

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.8	1.0	0.8	0.8	0.9	1.0
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	28	30	32	36	36	28
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	261	293	172	219	172	167
Final disposal amount of waste	ton	0	0	0	0	0	0

Kyushu Plastic Industry

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.2	0.2	0.2	0.2	0.2	0.2
PRTR-subject substances	ton	6	7	7	7	3	0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	171	159	151	169	141	170
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	76	71	68	64	79	80
Final disposal amount of waste	ton	29	16	11	8	24	20

Denka Elastlution

Year	Unit	Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.05	0.06	0.06	0.05	0.05	0.05
PRTR-subject substances	ton	0	0	0	0	0	0
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	73	73	74	74	74	72
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	61	66	57	66	70	67
Final disposal amount of waste	ton	5	0	0	0	0	0

Denka Astec (formerly Nakagawa Techno)

Year	Unit	Nakagawa Techno	Denka Astec				
		Results	Results	Results	Results	Results	Target
		Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
CO ₂ emissions (energy resources)	10,000 tons	0.006	0.005	0.005	0.006	0.005	0.005
PRTR-subject substances	ton	0.1	0.1	0.1	0.1	0.1	0.1
NOx	ton	0	0	0	0	0	0
SOx	ton	0	0	0	0	0	0
Soot and Dust Emissions	ton	0	0	0	0	0	0
Water used	1,000 m ³	0.4	0.3	0.3	0.3	0.4	0.4
COD (BOD) Emissions	ton	0	0	0	0	0	0
Amount of industrial waste	ton	4.5	17.5	4.3	4.3	4.3	4.3
Final disposal amount of waste	ton	4.3	17.5	4.3	4.3	4.3	4.3

Denka Group Human Rights Initiatives

The Denka Group places importance on compliance with international human rights standards and strives to act in accordance with the United Nations "Guiding Principles on Business and Human Rights." As part of these efforts, the Denka Group Human Rights Policy was established to concretely formulate measures to eliminate human rights violations in all corporate activities, and was approved and established by the Board of Directors in September 2023.

This Human Rights Policy applies to all officers and employees of the Denka Group, and requests that this Policy be supported and respected by our business partners and suppliers. Furthermore, as a signatory of the United Nations Global Compact, the Denka Group supports the ten principles set forth by this initiative and will continue to fulfill its responsibilities.

Denka Group Human Rights Policy

Denka Group Human Rights Policy

The Denka Group ("Denka") aims to contribute to society by providing innovations and solutions under our Vision, consisting of Core value, Purpose and Mission, as the basis of business activities of all executives and employees of Denka. Denka understands that human rights are important matters in all our business activities. Denka has established this policy to fulfill our responsibility to respect human rights and to contribute to overcome human rights issues in accordance with the "Denka Group ESG Basic Policy" and the "Denka Group Corporate Ethics Policy" and will strive to achieve our objectives as set forth below.

This policy was approved by the Board of Directors on September 11, 2023.

1. Scope

This policy applies to all executives and employees, including non-regular employees, of Denka. Furthermore, Denka will encourage all our business partners, including suppliers, to understand this policy.

2. Support for International Norms and Standards

Denka will respect international standards of human rights set forth in (i) the International Bill of Human Rights, consisting of Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, International Covenant on Economic, Social and Cultural Rights, (ii) the International Labor Organization's (ILO) Declaration on Fundamental Principles and Rights at Work and the fundamental principles established therein regarding "Freedom of Association and the Right to Collective Bargaining", "Elimination of all forms of Forced or Compulsory Labor", "Effective Abolition of Child Labor", "Elimination of Discrimination in Respect of Employment and Occupation", and "Safe and Healthy Working Environment," and (iii) the OECD's "Guidelines for Multinational Enterprises." Also, Denka will exert efforts to act in accordance with the United Nations Guiding Principles on Business and Human Rights and will support the Ten Principles of the United Nations Global Compact as a company that has signed the United Nations Global Compact.

Denka will comply with the laws and regulations applicable in each country and region where we conduct business activities. However, should the laws and regulations of the country or region conflict with international human rights norms, Denka will pursue the methods that maximize respect for internationally recognized human rights principles.

3. Responsibility to Respect Human Rights

Denka will strive to ensure that our business activities do not violate the human rights of any person related to our business. We will not tolerate any form of discrimination based on gender, age, nationality, ethnicity, race, place of origin, religion, belief, disability, sexual orientation, gender identity, and other factors, and treat individuals fairly in all aspects of employment, including recruitment, job placement, and promotion. In the event of any adverse impact caused by our business activities, Denka will fulfill our responsibility to respect human rights by taking appropriate corrective actions.

Denka will not tolerate harassment and discrimination that hurt the dignity of individuals, and any form of child labor and forced labor. In addition to guaranteeing the payment of wages above the minimum wage necessary for a stable livelihood, we will make efforts to establish appropriate wage conditions, such as providing equal pay for equal work, and ensure that wages and benefits are provided without gender-based discrimination. Denka will respect workers' freedom of association and the right to collective bargaining, and will work to prevent excessive working hours, reduce overtime, and create a safe, healthy, and comfortable work environment with fair wages guaranteed. In addition, Denka will strive to provide our customers with safe products and services and to disclose appropriate information.

4. Governance

We will clarify a person who is responsible for overseeing our compliance with this policy and our efforts based on this policy.

5. Human Rights Due Diligence

Denka will seek to conduct human rights due diligence to identify and assess potential or actual human rights impacts by its business activities, and to take measures to prevent or mitigate risks to human rights.

6. Remedial Measures

If it becomes clear that Denka has caused adverse human rights impact, we will make efforts to correct and remedy such impacts through appropriate measures. Regarding adverse impacts on human rights that are directly linked to Denka's business through business relationships, Denka will also make efforts to find a solution to human rights issues in our supply chain by encouraging our business partners to make efforts to correct and remedy such negative impacts.

7. Stakeholder Engagement

Regarding measures to address potential and actual adverse human rights impacts, Denka will exert efforts to take such measures through continuous consultation and engagement with relevant internal and external stakeholders.

8. Grievance Mechanism

Denka will take measures to improve the effectiveness of the correction and remedy of any concerns about human rights by establishing a system to report any concerns about human rights for all executives and employees of Denka, all business partners including suppliers and other stakeholders.

9. Education and Training

For the effective implementation of this policy, Denka will offer training to all officers and employees of Denka, including non-regular employees, to enhance their understandings as to respect for human rights.

Established on September 11, 2023

Revised on March 10, 2025

Ikuo Ishida

President and CEO

Denka Company Ltd.

Important Human Rights Risks of the Denka Group (10 items)

Denka has identified prominent human rights risks that may arise in the course of corporate activities. In identifying risk items, we conducted hearings with each business division, management division, and labor union, and extracted 10 risk items to be addressed as priorities.

In the future, we will continue to conduct hearings to expand the scope of targets, promote response measures for prevention and mitigation, and aim to establish a human rights due diligence process.

Category	Risk Items
Occupational health and safety	Human rights in work environment (health and safety)
Power Harassment	Risk of Power Harassment occurring among employees
	Risks of Power Harassment on employees of suppliers (including their business partners)
	Risks of Power Harassment on our employees by a customer
Long working hours	Risks of long working hours and overwork
Freedom to relocate residence	Risks of violating freedom of relocating residence by forced transfer of work location or job
Rights of Indigenous people and local residents	Risks of violating freedom of relocating residence by forced transfer of work location or job
Consumer safety and the right to know	Risks of violating the right to know of purchasers and consumers due to misinformation related to products
Occupational health and safety	Human rights risks related to health and safety in supplier's work environment
Forced Labor and Child Labor	Risks of serious incidents of forced and child labor occurring in the production sites of raw materials, etc., and purchasers (and plants)

Promotion of Human Rights Due Diligence

Denka has organized a human rights working team with relevant departments and is promoting efforts to respect human rights in a coordinated manner. The progress of these efforts is discussed at The Sustainability Committee and reported to the Board of Directors twice a year.



Engagement activities with stakeholders

Denka conducts ongoing dialogue and discussions with relevant internal and external stakeholders to identify and address potential and actual human rights issues, as stated in Article 7 of the Denka Group Human Rights Policy.

■ Dialogue with external stakeholders

In order to correctly understand the human rights risks of major suppliers, we send a Self-Assessment Questionnaire (SAQ) based on the 10 Principles of the United Nations Global Compact (various risks including human rights risk) to all suppliers and request their responses. We list the SAQ results of each company by item, and for suppliers that do not meet a certain score, we will plan and implement dialogue and discussions for improvement. In addition, we request that new business partners agree to our CSR Procurement Policy, which states our commitment to human rights.

■ Dialogue with internal stakeholders

The Denka Group conducts explanatory meetings for the "Denka Group Human Rights Policy" and "Future Human Rights Initiatives" for all employees. In addition, we conduct e-learning together with Denka's compliance training, monitor employees' understanding of human rights, and link this to the next actions.

In the future, we will continue to raise awareness and promote the "Denka Group Human Rights Policy" among all Group employees, and systematically address human rights due diligence and human rights remedy mechanisms together with third parties with expertise in these areas.

Compliance and Engagement with Human Rights

The Denka Group Ethics Policy state that the Denka Group must maintain good human relationships and obliges all officers and employees of the Denka Group to respect individual human rights. Furthermore, the "Standards of Business Conduct" state that officers and employees of the Denka Group must recognize that laws, customs, traditions, and cultures differ from country to country and region to region, and that it is important to act as a good corporate citizen in all countries and regions where the Denka Group conducts business with a high level of ethics. Moreover, the Business Conduct Guidelines state that it is important for officers and employees of the Denka Group to be treated fairly without discrimination in all aspects of employment, including job placement, promotion, transfer, and training opportunities, based on the abilities and aptitudes required for the job, as well as laws and regulations, regardless of ethnicity, race, gender, religion, nationality, age, physical disability, or gender identity. Furthermore, the Business Conduct Guidelines clarify specific obligations and prohibitions that must be observed by all officers and employees of the Denka Group to ensure compliance with labor laws and regulations, provide equal employment opportunities and treatment without discrimination, and prevent harassment in the workplace. In particular, training materials for preventing workplace harassment include specific examples of power harassment and sexual harassment in accordance with guidelines set forth by the Ministry of Health, Labour and Welfare, and are carefully designed to prevent harassment in the Denka Group.

In addition, Denka signed the United Nations Global Compact in June 2023. Denka supports the 10 Principles of this initiative, respects various other international standards regarding human rights, and contributes to addressing human rights issues through its business activities.

Denka Group's Initiatives for Labor Issues

As stated in Article 3 of the Denka Group Human Rights Policy, Denka does not permit child labor or forced labor in any form. The same prohibition is also stipulated within the Denka Group Employment Regulations. As a preventative measure, we prevent the occurrence of child labor by ensuring that the age of employees in Japan is verified by means of a copy of their Certificate of Residence or Residence Card, which is submitted at the time of employment. In addition, to prevent forced labor, we do not restrict employees' freedom of movement or keep important documents such as passports in custody.

Respect for the Freedom of Association and the Right to Collective Bargaining

Denka employees are organized into Denka labor unions, which have the right to collective bargaining. In addition to holding labor-management consultations three times a year, we hold monthly liaison meetings, valuing an appropriate relationship with labor unions and respecting the unions' aims and ideas for protecting workers' rights. In addition, active discussions on working conditions and the working environment for employees are held between labor and management, and we are actively working toward improvements. Through these activities, we aim to build sound labor-management relations based on mutual understanding and trust and to realize inclusive workplace environments.

Utilization of Human Resources and Strengthening of Development Systems

At Denka, we appropriately understand the strengths and individuality of each employee and have them play optimal roles. Furthermore, based on the vision of our Management Planning Mission 2030, we are promoting the utilization of human resources and the strengthening of development systems with the aim of fostering future management personnel, establishing a company-wide education system, and creating a culture of self-directed learning.

What Denka Considers to be Specialists

Denka's purpose is to become specialists who make the world a better place through the power of chemistry. The Denka specialists who support this purpose are people who possess our three core values of Integrity, Initiative, and Empathy, give their best efforts in each of their respective places, and act with the will to become the best version of themselves that they can be in those places.

Hiring Specialists

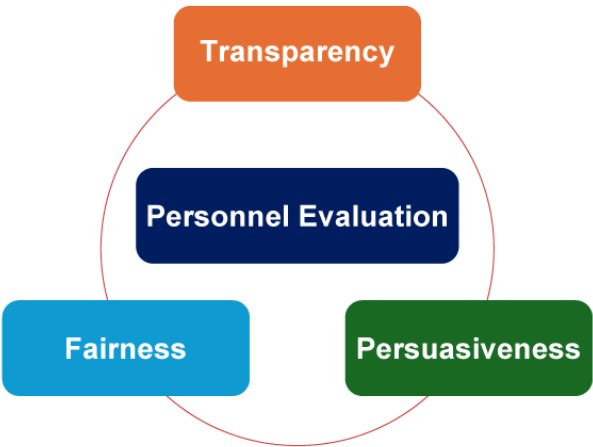
Denka's recruitment activities have a major purpose of welcoming excellent human resources who can become specialists in Denka. To achieve this purpose, we are planning to recruit a diverse range of human resources with various backgrounds, regardless of gender or nationality, in a best-mix of new graduates and mid-career professionals.

Denka's Personnel System

Denka has implemented a personnel system that emphasizes the following three points to facilitate the growth and career development of each individual employee.

- ① Disclose the contents of the system, evaluation criteria, and promotion criteria to employees in order to ensure "transparency."
- ② Conduct evaluation with "fairness" based on clearly defined roles and definitions for each personnel grade and job type.
- ③ Companies must ensure that evaluators provide feedback so that each individual can move on to the next step with a sense of "persuasiveness" regarding the evaluation process and results.

Key Points of the Personnel System



Main occupational group system

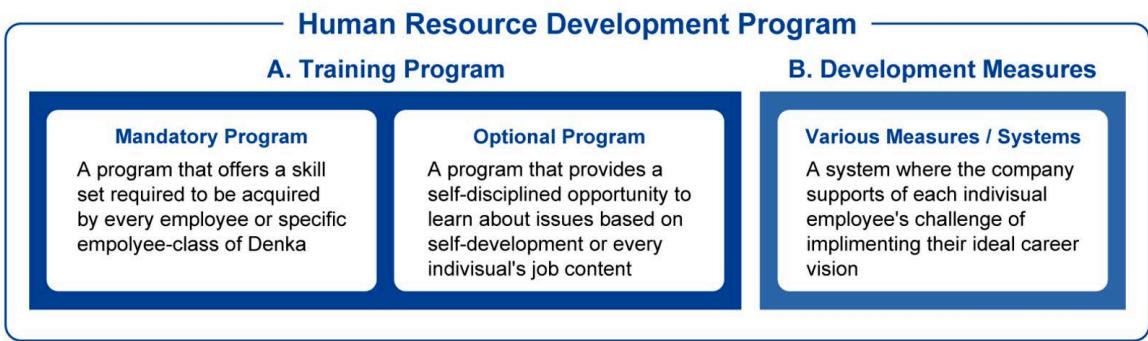
職群	ミッション
G職	経営や事業を担う人財として、新しい価値を創出し、変革を推進する
M職	主体的に仕事の効率性や生産性を追求し、業務改善を推進する

Promoting proactive career development by employees

Education and training programs

Denka believes that the growth of each and every Denka employee is indispensable for the realization of our VISION. The challenges of one person stimulate those around them and give rise to new challenges for someone else. Challenges bring about positive change to organizations and create a culture that encourages people to take on challenges. The potential of people is nothing but the potential of organizations. Denka will strongly support the challenges of each individual to become the best version of themselves and continue to pursue the creation of more opportunities for growth within the organization.

Denka's human resource training programs consist of two main components: ① "Training Programs," which include mandatory programs for each employee rank and optional programs for self-directed learning, and ② "Development Measures," which support employees in achieving their career goals, including self-development support systems.



In the mandatory programs, we provide programs tailored to the "ideal employees" defined by each employee's rank every year starting from the year of joining the Company. For example, for the young employees up to five years after joining the Company, we define that they are required to become people who "have a sense of ownership and can achieve results by involving those around them," and provide opportunities to acquire the mindsets, skills, and knowledge necessary to become such people, thereby supporting their growth.

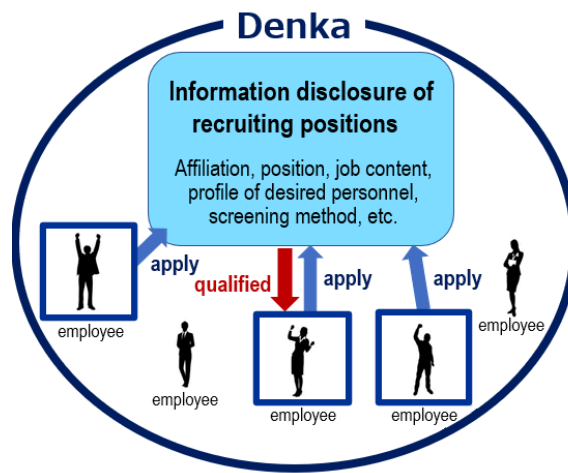
For the management employees, we define that they are required to become people who "understand the roles required of them and can demonstrate leadership to bring about organizational change by acquiring knowledge and skills," and conduct management training that can support their growth. Furthermore, in order for Denka to continue creating products that are always needed by the world, it is essential for all Denka employees to accurately grasp the trends of the times. Therefore, we also make mega trend training mandatory using teaching materials that are easy for employees to relate to.

In the selected programs, to achieve the goal of "fostering a culture of self-directed learning," we have established an environment in which each employee can select and learn from among programs in the categories of thinking skills, communication skills, and business/operational skills on e-learning. Furthermore, as a new initiative for our development measures, we will introduce a self-development support system in FY2024.

Internal recruitment system

At Denka, we have introduced an internal recruitment system in 2023 to not only boost employee motivation by providing opportunities for employees to actively challenge their desired positions, but also to match organizational and individual needs. By making the requirements for posts and job types needed by the Company public in advance and appointing the necessary personnel from among applicants, this system achieves the following two points.

- By having each department proactively address the securing of outstanding personnel and encouraging awareness and actions to enhance the appeal of each department, the Company aims to boost organizational vitality.
- Companies also measure the matching of employees' motivation and career plans with the human resource needs of each department in addition to the skills and experience that employees possess.



Occupational Safety and Health

Activities in Fiscal 2024 (Company-wide Targets and priority initiatives)

Companywide Targets	
1 Promotion of initiatives to achieve an occupational accident frequency rate of 0.2 or less	2 Achievement of zero serious accidents
Priority Initiatives	
1 Creating Absolute Safety A penetrative series of activities, from identifying the source of danger and construction of safety measures to establishing rules	
2 Strengthening of Process Safety Simulation of explosion leakage and response to natural disasters	
3 Enhancing Education Improved education system to bring about a training environment that enhances both hard and soft safety measures	
4 Support for Affiliated and Partner Companies Develop safety management system and promote activities for the whole group	
5 Enhancement of Horizontal Functions Corporate Division to take the lead in horizontal development of good practices within the Group	

> [Safety performance data](#)

Basic Policy

All employees[※] of the Denka Group understand and practice that workplace safety and health and facility security and disaster prevention are the top priorities in all production-related activities.

※ All officers, employees, dispatched employees, contractors, and employees of contractors of the Denka Group

Established: April 2025

Guidelines fo Actions

- (1) Legal Compliance

All officers and employees will fulfill legal requirements such as safety laws and regulations, and will establish and comply with their own rules and standards.
- (2) Communication from Management

The management teams of each group company will take the lead in sending messages and will establish and comply with their own rules and standards.
- (3) Securing Management Resources

The management teams of each group company will secure and invest the necessary human, technical, and financial resources to create a safe and secure working environment.
- (4) Identifying Hazards and Eliminating and Reducing Risks

All officers and employees strive to reduce and eliminate risks by identifying, risk assessment, and countermeasures for sources of danger (especially high-energy hazards) that can lead to serious accidents and accidents in the workplace.

(5) **Promote Effective Occupational Safety and Health Activities Based on Evidence**

The Environmental Safety Departments of each group company will collect and analyze internal and external information regarding occupational safety and health, and select and promote highly effective activities based on this evidence.

(6) **Ensuring Psychological Safety and Mental and Physical Health**

The management teams of each group company will foster a psychologically safe work environment where all executives and employees can communicate what needs to be communicated, demonstrate empathy for their coworkers, and continually implement effective measures to ensure mental and physical health.

(7) **Implementing Systematic Education and Training**

The environmental safety departments of each group company will strive to improve safety awareness by establishing an occupational safety and health education system that clearly targets the target audience, and planning and implementing education and training based on this system.

(8) **Continuous Improvement based on Audit and Support System**

The Environmental & Safety Department at the group headquarters will continually improve our safety culture through regular audits, monitoring, support, and follow-up of each group company.

Established: April 2025

Safety management System

Safety Management System



Safety Review Meetings

Safety review meetings are held regularly by the officers in charge of environment and safety in order to motivate each business site regarding occupational safety and health, security management, and to coordinate policies. At these meetings, we confirm priority implementation items for each business site based on company-wide policies, discuss progress and issues, and also have dialogue with people at all levels to identify health and safety management issues and provide feedback to company-wide policies.

Safety Management Conferences

Conferences aimed at identifying potential dangers related to explosion, fire and leakage posed by each manufacturing process and formulating countermeasures.

Safety risk assessment

Denka conducts risk assessments including the safety of existing facilities and plants in accordance with its basic policy on occupational health and safety and security.

In each stage from research and development to commercialization, design review meetings are held to identify and eliminate risks prior to commercialization. Furthermore, when introducing new equipment, a pre-introduction safety assessment is conducted, and when changing operating conditions, change management is thoroughly implemented to confirm the presence or absence of risks.

Occupational Health and Safety Committee

Denka has appointed the President as the head of the Safety Measures Headquarters, and the Environmental & Safety Department, which is the corporate department of the Denka Group, oversees and supports the Group-wide health and safety activities. At each business office, health and safety committees meet once a month, where management personnel led by safety managers and labor union members elected as employee representatives investigate and discuss health and safety issues as well as the causes of occupational accidents and measures to prevent their recurrence. Through these activities, labor and management work together to reduce occupational health and safety risks. At the meetings of our overseas and domestic group companies, personnel from our mother factory also participate to share our health and safety policies and activities.

Ensuring safety in transportation

In fiscal 2020, we held a web-based meeting to report on safety initiatives conducted by all logistics divisions. In addition, we conducted safety rule education for first-time drivers entering our premises, as well as yellow card (emergency contact card) training for logistics disasters and accidents, which is regularly held by our logistics contractors, to facilitate the exchange of opinions on logistics safety and raise safety awareness. In fiscal 2022, we will continue to promote the review of logistics operations and prevent logistics disasters through the promotion of the White Logistics Movement, in addition to continuing various activities for logistics safety.



Yellow Card Training

Denka Group Sustainable Procurement Basic Policy and Guidelines

The Denka Group is committed to building partnerships with all of its business partners to strengthen mutually-beneficial relationships, and fulfilling its social responsibilities throughout the supply chain to achieve sustainable development. To these ends, the Denka Group established the Denka Group Sustainable Procurement Basic Policy and the Denka Group Sustainable Procurement Guidelines based on the Denka Group ESG Basic Policy. To promote sustainability throughout the supply chain, this Policy and these Guidelines apply to transactions with all business partners.

Denka Group Sustainable Procurement Basic Policy

Article 1

The Denka Group respects internationally recognized standards and conducts procurement operations in compliance with applicable laws and regulations as well as corporate ethics.

Article 2

When procuring raw materials, equipment, and construction services, the Denka Group comprehensively takes into consideration quality, price, and delivery time as well as its business partners' technical capabilities, supply stabilities, and measures its business partners take to address social issues including human rights problems and environmental preservation including climate change.

Article 3

The Denka Group sincerely treats its business partners as important partners in carrying out its business and strives to build mutual understanding and trust through fair transactions.

Article 4

The Denka Group respects human rights and does not engage in discrimination based on gender, age, nationality, ethnicity, race, place of origin, religion, belief, disability, sexual orientation, or gender identity. All child labor and forced labor is prohibited, and the Denka Group strives to improve workplace environments, health, and safety, and respects the freedom of association and right to collective bargaining of employees. Furthermore, the Denka Group complies with the minimum wage laws and regulations of countries and regions where it operates and strives to conduct procurement with consideration for the payment of living wages.

Article 5

The Denka Group recognizes that consciousness for global environmental issues including climate change is an important matter and conducts procurement with consideration for curtailing environmental impact including reducing energy use, cutting greenhouse gas emissions, protecting water and biodiversity, conserving and recycling resources, and reducing waste.

Article 6

The Denka Group does not accept inappropriate entertainment or gifts that exceed social norms in its relationships with its business partners,. Furthermore, the Denka Group prepares for the actions of anti-social forces and organizations that pose threats to civil society or corporate activities, takes a firm stance towards such persons/organizations, and maintains no relationships with them.

Article 7

The Denka Group maintains the confidentiality of confidential information ※ of business partners acquired through procurement activities, and manages and protects the intellectual property rights of business partners in an appropriate way.

※ Confidential information generally refers to information disclosed through documents (including data recorded electronically or optically) that is agreed to be confidential, as well as information disclosed orally with prior notification that it is confidential.

Article 8

The Denka Group provides fair and equitable opportunities for competition on equal terms to all of its business partners.

Established: September 2013

Revised: April 2025

Denka Group Sustainable Procurement Guidelines

These Guidelines were established to set forth matters that the Denka Group and its business partners should address together to fulfill their social responsibilities. The Denka Group requests that all suppliers understand and implement these Guidelines.

1. Respecting the Laws and Internationally Recognized Standards

Companies must respect internationally recognized standards in addition to complying with the laws and regulations of their home country as well as countries and regions where they conduct business.

2. Human Rights and Labor

Companies must respect the rights of workers in line with internationally recognized human rights standards in addition to complying with relevant laws and regulations.

(2-1) Prohibiting Forced Labor

Companies must not use labor obtained by forced, bonded, exploitative prison labor, slavery, or human trafficking. Companies also must not force to work, and must keep the right of workers to terminate employment.

(2-2) Prohibiting Child Labor and Respecting the Rights of Young Workers

Companies must not allow children who are under the minimum age for employment. Furthermore, companies must also not allow young workers under the age of 18 to perform hazardous work that is likely to jeopardize their health or safety, including night work or overtime.

(2-3) Decent Working Hours

Companies must not allow workers to work exceeding the maximum working hours set by local laws and regulations, and appropriately manage working hours and days off in consideration of internationally recognized standards.

(2-4) Adequate Wages and Allowances

Companies must comply with all applicable laws and regulations regarding payments of work (including minimum wage, overtime payments, and allowances and deductions required by law).

Furthermore, it is expected that companies pay wages at a level that allows workers to support their basic needs (a living wage).

(2-5) Prohibiting Inhumane Treatment

Companies must respect the human rights of workers and must not treat workers in a manner that is or may be construed as inhumane, including physical and psychological abuse, coercion, or harassment.

(2-6) Prohibiting Discrimination

Companies must not engage in discrimination or harassment based on gender, age, nationality, ethnicity, race, place of origin, religion, belief, disability, sexual orientation, gender identity.

Companies must also consider requests from workers regarding religious practices where appropriate.

(2-7) Freedom of Association and Right to Collective Bargaining

Companies must respect the right to collective bargaining of workers as a means to improve working conditions and wage levels in compliance with local laws and regulations.

3. Health and Safety

In addition to complying with relevant laws and regulations, Companies must take consideration of standards such as ILO health and safety guidelines to minimize injury and illness in the workplace and maintain a safe and healthy working conditions.

(3-1) Occupational Safety

Companies must identify and assess risks regarding occupational safety and maintain safety through proper design, engineering, and administrative controls.

(3-2) Emergency Preparedness

Companies must identify the possibility of emergency situations by such as natural disasters or accidents that may adversely affect human life or safety, establish procedures in case of emergency to minimize harm to workers and property, install the required equipment, and conduct training and drills so that the required responses can be taken in case of emergency.

(3-3) Occupational Injury and Illness

Companies must identify, assess, record, and report the status of occupational injury and illness, and implement appropriate countermeasures and corrective actions.

(3-4) Industrial Hygiene

Companies must identify, assess, and appropriately control the risks of workers being exposed to hazardous biological, chemical, and physical agents in the workplace.

(3-5) Consideration for Physically Demanding Work

Companies must identify and assess worker exposure to the hazards of physically demanding tasks and appropriately control such work so that it does not lead to occupational injury and illness.

(3-6) Machine Safeguarding

Companies must evaluate the machinery used by workers for safety hazards and provide appropriate safeguarding.

(3-7) Health and Safety at Facilities

Companies must appropriately maintain the health and safety of facilities and accommodations provided to workers.

(3-8) Health and Safety Communication

Companies must provide training on appropriate health and safety information regarding various workplace hazards that workers are exposed to in the workplace in languages and methods that the workers can understand. A system that enables workers to provide feedback on safety is also required.

(3-9) Worker Health Management

Companies must conduct appropriate health management for all employees.

4. Environment

Companies must recognize that consciousness for the global environment is an important issue and actively address global environmental problems, such as climate change, resource depletion, and pollution, give consideration to the health and safety of people in its relevant local communities, and conduct procurement with consideration for curtailing environmental impact including cutting greenhouse gas emissions, protecting water and biodiversity, recycling resources, and reducing waste.

(4-1) Environmental Permits and Reports

Companies must obtain the permits and approvals required for conducting business as well as register and report according to local laws and regulations.

(4-2) Reducing Energy Consumption and Greenhouse Gas Emissions

Companies must address energy efficiency and make continuous efforts for reducing greenhouse gas emissions and energy consumption.

(4-3) Air Emissions

Companies must comply with relevant laws and regulations and implement appropriate measures for reducing the emission of hazardous substances to the atmosphere.

(4-4) Water Management

Companies must comply with laws and regulations, monitor the source, usage, and discharge of water used, and save water.

All wastewater must be tested as required, and monitored, controlled, and processed before discharge or disposal. Sources of pollution that may cause water pollution must also be identified and appropriately managed.

(4-5) Effective Utilization of Resources and Waste Management

Companies must comply with laws and regulations and implement appropriate management in order to promote the 3Rs (reduce, reuse, and recycle), ensure the effective utilization of resources, and minimize waste.

(4-6) Chemical Substance Management

Companies must comply with laws and regulations and manage chemicals and other substances that pose hazard to humans or the environment to ensure safe handling, transport, storage, use, recycling or reuse, and disposal of such substances.

(4-7) Managing Chemical Substances Contained in Products

Companies must comply with all laws, regulations, and customer requests applicable to the prohibition and restriction of specific substances contained in products.

5. Fair Trading and Ethics

Companies must respect internationally recognized standards, comply with applicable laws and regulations as well as corporate ethics, and conduct business activities based on high ethical standards.

(5-1) Preventing Corruption

Companies must not be involved in bribery, corruption, blackmail, or embezzlement in any form.

Companies must also not provide or accept any promises, propositions, or approvals as a means of obtaining bribes or any other illicit or inappropriate benefit.

(5-2) Exclusion of Anti-Social Forces

Companies must prepare for the actions of anti-social forces and organizations that pose threats to civil society or corporate activities, take a firm stance towards such persons or organizations, maintain no relationships with them, and provide no benefit to them.

(5-3) Fair Information Disclosure

Companies must disclose information regarding labor, health and safety, environmental activities, business activities, organizational structure, financial situation, and performance according to applicable laws and regulations and industry practices. Falsification of records or the disclosure of false information is not allowed.

(5-4) Respecting Intellectual Property

Companies must respect intellectual property rights and the transfer of technology and expertise must be conducted in a manner where intellectual property is protected. Companies must also protect the intellectual property of third parties such as customers and suppliers.

(5-5) Conducting Fair Business

Companies must engage in fair business, competition, and advertising. In doing so, companies must comply with laws and regulations relating to fair competition and transactions, comply with all applicable laws and regulations and other social norms in the course of the companies business activities, and conduct fair advertising in relation to products and services.

(5-6) Protecting Whistleblowers

Companies must protect the confidentiality of information regarding whistleblowing and the anonymity of whistleblowers, and avoid retaliations towards whistleblowers.

※ Contact points based on the Denka Group whistle-blowing system

(5-7) Responsible Minerals Procurement

Companies must exercise due diligence to ensure that the minerals such as tantalum, tin, tungsten, and gold contained in its products manufactured do not cause or contribute to serious human rights abuses, environmental destruction, corruption, or disputes in Conflict-Affected and High-Risk Areas.

6. Quality and Safety

Companies must ensure the safety and quality and provide correct and accurate information on provided products and services.

(6-1) Ensuring Product Safety

Companies must fulfill their responsibility as a supplier by ensuring that products meet safety standards stipulated by national laws and conduct design, manufacturing, and sales to ensure adequate product safety.

(6-2) Quality Management

Companies must comply with their own quality standards and customer requirements in addition to all laws and regulations applicable to the quality of products and services.

(6-3) Providing Accurate Information on Products and Services

Companies must provide correct and accurate information on products and services that will not cause misunderstandings.

7. Information Security

Companies must prevent leaks of confidential information and personal information, and enhance information security.

(7-1) Defense from Cyber Attacks

Companies must implement protective measures against threats such as cyber attacks and conduct management to prevent damage to the company and others.

(7-2) Protecting Personal Information

Companies must comply with relevant laws and regulations and appropriately manage and protect all personal information of suppliers, customers, consumers, and employees.

(7-3) Preventing Leak of Confidential Information

Companies must appropriately manage and protect the confidential information not only of their own but also received including from customers and third parties.

8. Business Continuity Planning

Companies must make preparations to ensure that they can quickly resume business activities in order to fulfill their responsibility of supply in the event that the company or a business partner becomes a victim of such as a large-scale natural disaster.

(8-1) Developing and Preparing a Business Continuity Plan

Companies must identify and assess risks to business continuity, examine their impact on the business, and establish preparatory measures required in the medium to long term and a business continuity plan (BCP) that indicates the status of those initiatives.

(8-2) Improving Supply Chain Traceability

Companies must ascertain upstream information of procuring raw materials and fuels to the extent possible, anticipate potential risks relating to raw materials and fuels and the suppliers themselves, prepare for those risks, and share risk information with customers.

Established: September 2013

Revised: April 2025

These Guidelines were prepared by making reference to the JEITA Responsible Business Conduct Guidelines.

Our Response and Approach to Responsible Mineral Procurement

Minerals from conflict areas such as the African continent can be a source of funds for those who promote conflicts, and therefore regulations have been established such as regulations pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act in the U.S. and similar regulations in Europe. Although we are not directly obligated to comply with these regulations, we are investigating the use of conflict minerals in our products about which there have been requests for investigations from our customers driven by societal demands. We report the investigation results in the CMRT (Conflict Minerals Reporting Template) format, which is an international template for investigations.

Strengthening of Partnership with the Supply Chain

Building a Sustainable Supply Chain

We believe that it is important to fulfill our social responsibilities together with our suppliers that make up our supply chain. To this end, we will continue our activities to explain the Denka Group ESG Basic Policy and gain the understanding of our suppliers through direct visits, which we have been conducting since 2017, to foster good partnerships.

In addition, in June 2023, we signed the United Nations Global Compact, the world's largest sustainability initiative, and requested all of our suppliers to complete the SAQ questionnaire issued by this initiative. For suppliers that do not meet certain scores, we provide feedback on their scores and use the questionnaire as a tool for mutual discussion and improvement toward corrective action.

The Denka Group includes a statement of agreement regarding the Denka Group Sustainable Procurement Basic Policy and the Denka Group Sustainable Procurement Guidelines in the basic purchasing agreements with all companies with which it conducts transactions.

Furthermore, we have started constant monitoring using screening tools to quickly obtain sanctions/exclusion lists and negative press and prepare for supply concerns in advance.

By strengthening the supply chain through both enhancing relationships with suppliers and grasping information, we will build relationships with suppliers that are recognized by society and develop together.

Implementation of Buyer Training

In order for the Denka Group to build good relationships with its suppliers and promote sustainable procurement, all employees belonging in the procurement departments must continue to comply with the Denka Group Sustainable Procurement Basic Policy and the Denka Group Sustainable Procurement Guidelines. To this end, Denka conducts training every year not only on the contents of these policies and guidelines, but also on specific procurement activities looking ahead to the future and on original training materials for procurement personnel that summarize annual achievements, and implements educational programs including online training (e-learning, etc.).

Communication with Suppliers

Regarding all business partners as good partners of Denka Group, Denka Group has established the "The Denka Group Sustainable Procurement Basic Policy and Guidelines" based on the "Denka Group ESG Basic Policy" in order to realize social responsibility in the supply chain together with business partners. We have clarified our approach and standards for CSR procurement.

In addition, suppliers who account for the top 90% of Denka Group purchases are required to accept this policy by conducting a GCNJ (Global Compact Network Japan) assessment questionnaire.

Supply Chain Data

Item	Scope	Unit	Fiscal Year 2024	2025 Targets	2030 Targets
Percentage of companies that have agreed to Denka's Supply Chain Policy and Guidelines	Non-Consolidated	%	-	100%	100%
Percentage of audits conducted for low score suppliers	Non-Consolidated	%	-	50%	100%
Percentage of procurement department staff who have received training on policies	Non-Consolidated	%	0	100%	100%
Percentage of implementation of UNGC assessments	Non-Consolidated	%	67	67	90

Promotion of BCP Measures Through Raw Material Risk Evaluation

At Denka, we regularly conduct objective risk evaluation of raw material procurement and collaborate with the relevant departments to discuss countermeasures so that our raw material supply chain does not stop during the occurrence of unforeseen situations such as large-scale natural disasters (including earthquakes and damage from storms and floods), sudden geopolitical events, and pandemics. We are promoting the reduction of procurement risk and the strengthening of our business foundation.

Social Responsibility to Stakeholders

Statement on Improving Medical Access

The Denka Group recognizes the issue of access to medical care as an important human rights issue. Many people, especially in developing countries, find it difficult to receive appropriate medical care due to vulnerable medical infrastructures and environments where access to medical care is restricted. The spread of infectious diseases is particularly serious, and a vicious cycle is created in which many people lose their lives due to further infections caused by the fact that tests are not conducted even for diseases that can be cured with early diagnosis. Improving medical access will reduce such people and protect the lives and livelihoods of people around the world. The Denka Group will continue contributing to improving medical access for all people through our diagnostic reagents and healthcare services businesses, thereby helping achieve the materiality of "extending healthy life expectancy and correcting health disparities" set out in our management plan.

Efforts in Developing Countries for Pharmaceutical Development

The Denka Group has provided an Ebola virus antigen rapid test kit, co-developed with Professor Yoshito Takada of Hokkaido University, to the Democratic Republic of the Congo (DRC) through JICA. The kit has been used for initial testing during several outbreaks of Ebola hemorrhagic fever in the DRC, contributing to the prevention of its spread. The kit can provide results in about 10 minutes, can be stored at room temperature, and does not require any special equipment, making it usable in areas where infrastructure is lacking. Following its approval for manufacturing and marketing in Japan by the Pharmaceuticals and Medical Devices Agency (PMDA) in 2021, the kit received formal usage approval from the National Institute of Biomedical Research of the DRC in 2024, and is expected to contribute to rapid diagnosis and infection control in the event of an outbreak of Ebola hemorrhagic fever.

Proper Promotion Activities of Pharmaceuticals

Denka complies with the "Code of Practice" established by the Japan Pharmaceutical Manufacturers Association and the "In Vitro Diagnostic Reagents Promotion Code" established by the Japan Clinical Reagent Manufacturers Association. Denka takes all responsibility for promotion, including the conduct of medical information representatives, and has established an internal system for conducting appropriate promotion and is engaged in responsible advertising and marketing of pharmaceuticals.

※ The term "pharmaceuticals" as used hereinafter refers to both medical use pharmaceuticals and in vitro diagnostic pharmaceuticals.

<Promotion Code for Prescription Pharmaceutical Products and In-Vitro Diagnostics, Section 1: Denka's Responsibilities>

- (1) Appoint appropriate persons as medical representatives and continue to provide education and training.
- (2) Provide information on indications (purpose of use), dosage and method of use (method of operation), or sensitivity, accuracy, reproducibility (performance), correlation, etc. in a proper manner based on data with a clear scientific basis.
- (3) Accurately and promptly collect and communicate pharmaceutical information.
- (4) Establish an internal system to ensure that activities are conducted in compliance with relevant laws and regulations and voluntary regulations.

As a company that plays a part in medical care, Denka conducts responsible information activities for pharmaceuticals and recognizes that printed promotional materials, advertisements in specialist publications (print), promotional audiovisual materials such as slides and videos for advertising, and other promotional materials are important means of providing pharmaceutical information. In the preparation and use of these materials, Denka complies with the Pharmaceutical and Medical Device Act (Act on Securing Quality, Efficacy and Safety of Pharmaceuticals and Medical Devices) and the Guidelines for Information Provision Activities on Prescription Drugs, the Guidelines for Information Provision Activities on In-Vitro Diagnostic Drugs, the Guidelines for Preparing Product Information Summaries for Prescription Drugs, and the Denka "Promotion Code" established in accordance with these laws and guidelines, ensuring that the content is based on scientific evidence and is accurate, fair, and objective.

Work-related Data

- ※ For definitions of data ranges, please refer to [here](#).
- ※ This data is partially aggregated based on the definitions of the following job categories.
- G: Job category responsible for management and business, creating new value and promoting change
 - M: Job category pursuing work efficiency and productivity and promoting business improvement
 - S: Job category performing specific tasks requiring public qualifications or high expertise and supporting other job categories

Employee Composition

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Number of employees	Total number of employees (consolidated)		Consolidated	People	6,358	6,406	6,514	6,542	6,524	-
		of which are female employees	Consolidated	People	1,303	1,348	1,416	1,357	1,376	
		Percentage of female employees	Consolidated	%	20%	21%	22%	21%	21%	
		of which are foreign nationals	Consolidated	People	998	1,027	1,014	1,078	1,081	
		Percentage of foreign employees	Consolidated	%	16%	16%	16%	16%	17%	
	Total number of employees		Non-Consolidated	People	4,081	4,198	4,330	4,369	4,351	
		of which are male employees	Non-Consolidated	People	3,336	3,419	3,489	3,502	3,466	
		of which are female employees	Non-Consolidated	People	745	779	841	867	885	
		Percentage of female employees	Non-Consolidated	%	18%	19%	19%	20%	20%	
		Number of female management candidates ※1	Non-Consolidated	People	38	35	45	45	50	
Average age			Non-Consolidated	Year	40.8	40.7	40.7	40.6	40.7	
Number of employees by region	Japan		Consolidated	People	5,334	5,346	5,461	5,443	5,425	
		Of which, 8 major production sites ※2	Non-Consolidated	People	3,065	3,148	3,324	3,368	3,368	
	Asia (excluding Japan)		Consolidated	People	747	760	758	803	803	
	North America		Consolidated	People	237	260	262	262	262	
	Europe		Consolidated	People	40	40	33	34	34	
Number of employees by employment type	Official		Consolidated	People	6,358	6,406	6,514	6,542	6,524	
	Non-regular ※3		Consolidated	People	1,101	1,136	1,060	1,071	1,140	
Average years of service	Total		Non-Consolidated	Year	16.8	16.4	16.1	16	16.2	
	Male		Non-Consolidated	Year	18.2	17.9	17.6	17.4	17.6	
	Female		Non-Consolidated	Year	10.2	10.2	10.0	10.4	10.9	

※1 Number of women in the grade one level below Manager

※2 Excluding the Denka Innovation Center (research facility), which is a non-production site.

※3 Contract employee

Employment, Recruitment, and Labor Unions

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Number of newly recruited employees	Total	Non-Consolidated	People	111	242	304	205	130	
	of which are male employees	Non-Consolidated	People	85	198	216	153	97	
	of which are female employees	Non-Consolidated	People	26	44	88	52	33	
	of which are foreign nationals	Non-Consolidated	People	1	7	9	4	4	
	Percentage of newly recruited female employees	Non-Consolidated	%	23%	18%	29%	25%	25%	
	of which are categorized as the G-category	Non-Consolidated	People	42	68	73	76	35	
	of which are male employees	Non-Consolidated	People	30	48	54	53	22	
	of which are female employees	Non-Consolidated	People	12	20	19	23	13	
	of which are foreign nationals	Non-Consolidated	People	0	1	1	2	4	
	Percentage of newly recruited female employees	Non-Consolidated	%	29%	29%	26%	30%	37%	
M category + S category		Non-Consolidated	People	69	174	231	129	95	-
Number of experience persons recruited	Total	Non-Consolidated	People	17	66	83	14	20	
	Of which are in managerial positions※4	Non-Consolidated	People	3	2	0	0	-	
Percentage of employees with disabilities ※5		Non-Consolidated	%	2.19%	2.22%	2.09%	2.48%	2.70%	
Reemployment percentage of retired employees ※6		Non-Consolidated	%	89%	88%	92%	92%	92%	
Number of employees resigned / retired	Total	Non-Consolidated	People	94	103	101	90	90	
	Number of employees who left the company within 3 years of joining	Non-Consolidated	People	13	18	10	24	26	
	Percentage of employees who left the company within three years of employment	Non-Consolidated	%	5.4%	9.5%	8.7%	8.6%	8.6%	
Percentage of employees covered by collective bargaining agreements ※7		Non-Consolidated	%	100%	100%	100%	100%	100%	
Labor Union	Number of union members	Non-Consolidated	People	3,310	3,385	3,545	3,683	3,683	
	Percentage of union members	Non-Consolidated	%	81.1%	80.6%	81.9%	84.3%	84.6%	

※4 Number of experienced people recruited as managers out of the total number of experienced people recruited on the fiscal year

※5 Number of regularly employed people ÷ Number of employees with disabilities × 100

※6 Number of rehired retirees ÷ Number of retirees × 100

※7 Employee ratio covered by collective labor agreements = Number of employees covered by collective labor agreements ÷ Total number of employees × 100

Number of people in Managerial Positions ※8

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Total			Consolidated	People	-	-	-	876	-	
	Number of management personnel		Consolidated	People	-	-	-	876	-	
		of which are female employees	Consolidated	People	44	61	65	67	-	
		Percentage of female employees	Consolidated	%	-	-	-	8%	-	
Total			Non-Consolidated	People	469	482	475	484	500	
	Section Manager		Non-Consolidated	People	335	346	333	339	352	
		of which are female employees	Non-Consolidated	People	9	19	25	24	25	
		of which are foreign nationals	Non-Consolidated	People	3	3	3	2	2	
		Percentage of female employees	Non-Consolidated	%	3%	5%	8%	7%	7%	
		Percentage of foreign nationals	Non-Consolidated	%	1%	1%	1%	1%	1%	
	General Manager		Non-Consolidated	People	125	127	131	136	137	
		of which are female employees	Non-Consolidated	People	0	0	1	2	2	
		of which are foreign nationals	Non-Consolidated	People	0	0	0	0	0	
		Percentage of female employees	Non-Consolidated	%	0	0	1%	1%	1%	
		Percentage of foreign nationals	Non-Consolidated	%	0	0	0	0	0	
	Executive Officer		Non-Consolidated	People	9	9	11	9	11	
		of which are female employees	Non-Consolidated	People	0	0	0	0	-	
		of which are foreign nationals	Non-Consolidated	People	0	0	0	0	-	
		Percentage of female employees	Non-Consolidated	%	0	0	0	0	-	
		Percentage of foreign nationals	Non-Consolidated	%	0	0	0	0	-	

※8 Excluding Directors

Personnel Development Training

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Average training costs (per person)			Non-Consolidated	thousand yen	5.3	6.6	6.9	7.4	9.3	10.6
Number of participants of employee-class based training			Non-Consolidated	People	1,077	1,093	866	930	1,146	-
Percentage of employees taking reskilling training for employees returning from childcare leave ※11			Non-Consolidated	%	-	-	-	49%	100%	-
When new employees join	Number of G-categorized employees out of total of new employees		Non-Consolidated	People	42	68	73	75	34	-
	Percentage of Training attendance		Non-Consolidated	%	100%	100%	100%	100%	100%	-
	Third year of employment	Number of trainees	Non-Consolidated	People	61	66	39	64	72	-
		Percentage of Training attendance	Non-Consolidated	%	98.3%	100%	100%	100%	100%	-
	Fifth year of employment	Number of trainees	Non-Consolidated	People	52	43	42	50	36	-
		Percentage of Training attendance	Non-Consolidated	%	100%	100%	100%	100%	100%	-
Section Manager	Number of trainees		Non-Consolidated	People	305	302	87	123	490	-
	Percentage of Training attendance		Non-Consolidated	%	81.3%	78.6%	23%	95%	100%	-
General Manager	Number of trainees		Non-Consolidated	People	183	186	173	29	211	-
	Percentage of Training attendance		Non-Consolidated	%	103.4%	106.9%	98.3%	100%	100%	-
Percentage of employees whose evaluation based on "goal management" is linked to remuneration	Female	Percentage	Non-Consolidated	%	5.9%	5.9%	6.5%	8.7%	9.0%	-
	Male	Percentage	Non-Consolidated	%	33.0%	31.3%	30.1%	31.2%	30.3%	-
	Total	Percentage	Non-Consolidated	%	28.1%	26.6%	25.5%	26.7%	26.0%	-
Number of employees who conduct goal management and receive regular personnel evaluations	Number of people		Non-Consolidated	People	4,707	4,837	4,977	4,639	4,718	-
	Rate		Non-Consolidated	%	89.2%	89.1%	89.7%	90.1%	90.1%	-

※9 Female employees who returned to work after taking child care leave

※10 Fiscal 2024 (Trial implementation): Mandatory for returnees from previous fiscal year, optional for returnees from 2-3 fiscal years ago

※11 Implemented only for female employees from FY2024

Diversity, Equity & Inclusion

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Percentage of female managers	Consolidated	Total of female section managers, department managers, and executive officers	Consolidated	People	44	61	65	67	-	-
		Ratio of female managers ※12	Consolidated	%	-	-	-	8%	-	-
	Non-Consolidated	Total of female section managers, department managers, and executive officers	Non-Consolidated	People	9	19	26	26	-	-
		Ratio of female managers ※13	Non-Consolidated	%	2%	4%	5%	5%	7%	15%
Percentage of foreign nationals in management positions	Non-Consolidated	Total of foreign nationals in positions of section manager, department manager, and executive officer	Non-Consolidated	People	3	3	3	2	-	-
		Percentage of foreign national managers ※14	Non-Consolidated	%	1%	1%	1%	0	-	-
Percentage of female/foreign/experiential hires in management positions			Non-Consolidated	%	-	-	20%	21%	23%	50%
Percentage of women's average annual salary to men's average annual salary	Total workers	Percentage of average annual female wages to average annual male wages ※15	Non-Consolidated	%	-	61.4%	59.1%	61.9%	-	-
		Percentage of average amount of wage gap between men and women ※16	Non-Consolidated	%	-	39%	41%	38%	-	-
	Permanent employees		Non-Consolidated	%	-	69.1%	66.4%	70.5%	-	-
	Part-time and fixed-term workers		Non-Consolidated	%	-	43.0%	49.3%	40.9%	-	-
	(Reference) Managers		Non-Consolidated	%	-	-	85.8%	88.1%	-	-

※12 Number of female managers (consolidated) ÷ Number of managers (consolidated) × 100

※13 Number of female managers (excluding seconded employees) ÷ Number of managers (excluding seconded employees) × 100

※14 Number of foreign national managers (excluding seconded employees) ÷ Number of managers (excluding seconded employees) × 100

※15 Calculated based on the provisions of the Act on Promotion of Women's Participation and Advancement in the Workplace (Act No. 64 of 2015)

※16 Average amount of gender pay gap that has not been corrected = [Average male wage - Average female wage] ÷ Average male wage × 100

Work-style reform and support for balancing work and family

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Total working hours			Non-Consolidated	Time	1,953	1,916	1,907	1,916	1,916	-
Average overtime hours per employee per year			Non-Consolidated	Time	172	160	147	147	120	-
Paid leave	Number of paid leave days taken		Non-Consolidated	English	14.1	15.7	16.1	15.4	16	-
	Percentage of employees taking annual paid leave ※17		Non-Consolidated	%	75%	80%	80.5%	77%	80%	75% or more maintained
Employees using annual leave by hour ※18			Non-Consolidated	%	-	29.7%	41.1%	43%	43%	-
Working-from-home rate			Non-Consolidated	%	49.2%	47.4%	39.2%	34.9%	34.9%	-
Number of employees taking maternity leave	Total		Non-Consolidated	People	99	93	110	106	-	-
	of which are female employees		Non-Consolidated	People	34	25	30	30	-	-
	Of which, male ※19		Non-Consolidated	People	65	68	80	76	-	-
Parental leave	Number of employees who can take parental leave	Total	Non-Consolidated	People	147	130	143	30	-	-
		Number of women who can take new parental leave	Non-Consolidated	People	34	25	33	21	-	-
		Number of women taking new parental leave	Non-Consolidated	People	34	25	33	24	-	-
		Percentage of women taking child care leave	Non-Consolidated	%	100%	100%	100%	114%	100%	100%
		Number of male employees who can take parental leave	Non-Consolidated	People	113	105	110	83	-	-
		Number of male employees taking parental leave	Non-Consolidated	People	23	46	58	61	-	-
		Percentage of men taking paternity leave	Non-Consolidated	%	20%	44%	53%	73%	75%	85%
	Number of employees who took parental leave	Total	Non-Consolidated	People	57	71	91	85	-	-
		Reemployment rate	Non-Consolidated	%	-	-	-	100%	100%	100%
Number of employees who have taken time reduction制度			Non-Consolidated	People	79	7	72	84	-	-
Number of persons who acquired Continuing employment support system			Non-Consolidated	People	93	83	124	107	-	-
Number of employees who took nursing care leave			Non-Consolidated	People	0	0	2	3	-	-
Number of persons taking nursing leave in half-day units ※20			Non-Consolidated	People	214	-	-	-	-	-
Number of days taken for wellness leave ※21			Non-Consolidated	English	-	-	-	120	-	-
Number of days taken for volunteer leave			Non-Consolidated	English	0	0	0	0	-	-

※17 Number of paid leave days taken ÷ Number of paid leave days × 100

※18 A system that allows up to 5 days of annual paid leave to be taken in hourly units was introduced in FY2022. Number of users taking hourly paid leave ÷ Total number of employees × 100

※19 Number of employees taking spouse's parental leave

※20 From April 2022, the half-day unit for nursing leave was abolished and changed to hourly unit

※21 From April 2025, the name of menstrual leave will be changed, and the system will be revised to allow use for menstruation, infertility treatment, and donor activities

Health and Productivity Management

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Absenteeism ※22		Non-Consolidated	%	0.69%	0.65%	0.78%	0.80%	0.78%	0.70%
Percentage of employees within appropriate weight limits ※23		Non-Consolidated	%	65%	63.9%	64.6%	63.0%	68.0%	80.0% or more
Percentage of employees with high stress levels ※24		Non-Consolidated	%	13.4%	14.8%	14.7%	13.4%	11% or less	10.0% or less
Percentage of employees with good exercise habits ※25		Non-Consolidated	%	33.4%	32.5%	33.8%	37.7%	37.0% or more	40.0% or more
Percentage of Smokers		Non-Consolidated	%	28.7%	26.8%	24.8%	24.8%	21.0% or less	12.0% or less
Percentage of patients continuing treatment for hypertension ※26		Non-Consolidated	%	68.5%	67.1%	65.2%	68.5%	70.0% or more	80.0% or more
Health literacy (%) ※27		Non-Consolidated	%	-	52%	45.8%	37.9%	50.0% or more	60.0% or more
Periodic health examinations	Percentage of employees who received regular health examinations	Non-Consolidated	%	99.6%	100%	100%	100%	100%	100%
	Rate of receiving detailed medical examination after health checkup ※28	Non-Consolidated	%	68%	61.1%	60%	61%	65%	68%
Percentage of employees that had a stress test		Non-Consolidated	%	97.9%	94.6%	96%	95.5%	95%	95%
Percentage of specific health guidance implemented		Non-Consolidated	%	41.1%	29.7%	44.2%	54.2%	40%	60%
Health insurance union membership rate		Non-Consolidated	%	100%	100%	100%	100%	100%	100%
Town hall meetings conducted by management	Number of events ※29	Non-Consolidated	Times	-	-	-	16	-	-
	Number of holding offices ※30	Non-Consolidated	Location	-	-	-	21	-	-
	Number of participants ※31	Non-Consolidated	People	-	-	-	429	-	-
	Coverage rate of holding ※32	Non-Consolidated	%	-	-	-	95.5%	-	-

※22 Calculated as the number of sick leave days of all employees / the number of scheduled working days of all employees × 100

※23 Calculated by dividing number of employees with appropriate BMI by number of employees who received medical examinations

※24 Workers with high stress selected by a physician as requiring interview guidance based on stress check results

※25 Calculated by the number of people who answered that they have good exercise habits in health checkups ÷ number of people who received health checkups

※26 Calculated based on the number of people with systolic blood pressure of less than 140 and diastolic blood pressure of less than 90 among those taking antihypertensive drugs

※27 Percentage of registered users of the health management support service “&well” who logged in during the target fiscal year

※28 Percentage of those who underwent a detailed medical examination among those required to take medical examinations

※29 • Only offices visited by the President

• Sales branches and Medical branches held simultaneously

※30 Medical Sales Office is counted as 2 offices because it is held simultaneously at the branch

※31 Attendance on the day is not included for count of participant list

※32 Of the 22 mainstay locations

Data regarding Minimum Wage

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Comparison of local minimum wage and the minimum wage for newly-hired employees	Denka Performance Elastomer LLC	Women ※33	Non-consolidated sites / Domestic & Overseas Key production facilities	%	-	-	644.8%	816.70%	-	-
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			644.8%	816.70%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			644.8%	816.70%		
	Denka Electronics Materials Dalian	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
	Denka Chemical Development Suzhou	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
	Denka Advanced Materials (Suzhou)	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			100%	100.00%		

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
	Denka Chemicals Shanghai CO., LTD.	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			371.8%	371.70%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			371.8%	371.70%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			371.8%	371.70%		
	Denka Chemicals Shanghai Co., Ltd SHENZHEN BRANCH	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			381.4%	357.10%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			381.4%	357.10%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			381.4%	357.10%		
	DENKA ADVANCED MATERIALS VIETNAM	Female	Non-consolidated sites / Domestic & Overseas Key production facilities	%			132.2%	124.70%		
		Male	Non-consolidated sites / Domestic & Overseas Key production facilities	%			132.2%	124.70%		
		Average	Non-consolidated sites / Domestic & Overseas Key production facilities	%			132.2%	124.70%		

※33 Minimum wage of new employees ÷ Local minimum wage ×100

Human Rights Due Diligence

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Percentage of employees who have taken human rights education	Attendance rate (Attended either face-to-face or e-learning)		Consolidated	%	-	-	-	100%	-	-
Human rights risk survey	Number of sites for risk survey	Comprehensive risk survey through hearings and questionnaires ※35	Consolidated	Offices	-	-	Head office management sales7 departments, labor union: 1	Head office management Sales 7 departments, Labor union: 1, Business sites: 8	Head office management: 7 departments, Labor union: 1, Business locations: 8, Domestic group companies: 16, Overseas group companies: 25 (The denominator is 57 departments)	Implementation rate of 100% for 57 applicable divisions

※34 Implemented together with the Global Compliance Program (e-learning)

※35 Expand gradually using the number of applicable divisions for that fiscal year as the denominator.

Main unit:8 main production sites (manufacturing 80% of Denka product sales) + 14 sales offices including head office

Consolidated:38 consolidated subsidiaries in Japan and overseas (90% or more of Denka product sales are manufactured)

Non-consolidated sites / Domestic & Overseas Key Group Production Facilities25 major production sites
(manufacturing 90% or more of Denka product sales)

Safety Performance

On June 14, 2023, at our Omi Plant, one employee from our partner company died and two others sustained injuries in an accident in which a pipe had burst during maintenance work at. We pray for the deceased and extend our condolences to the bereaved family. We also take this opportunity to express our sympathies to the injured. We sincerely apologize for the inconvenience and concern we have caused to local residents, our many business partners and other persons involved. In addition to fully cooperating with the investigation by the relevant authorities, we have established an Accident Investigative Committee by inviting outside experts and professionals to thoroughly investigate the cause of the accident and formulate measures to prevent recurrence.

※ For definitions of data ranges, please refer to [here](#).

Occupational injury and illness data

Denka has set the target of 0.2 or less for the frequency rate of occupational injuries and illnesses by fiscal 2030 in accordance with its basic policy on occupational health and safety and security.

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Assessment of occupational health and safety risks ※1	Number of sites (offices) where risk assessment was conducted	Non-Consolidated	Base	8	8	8	8	8	7
	Percentage of sites where risk assessment was conducted	Non-Consolidated	%	100%	100%	100%	100%	100%	100%
Employee safety training ※1	Percentage of Denka employees taking courses up to 5 years of employment	Non-Consolidated	%	100%	100%	100%	100%	-	100%
	Percentage of first-year Denka employees taking training	Non-Consolidated	%	100%	100%	100%	100%	-	100%
Number of occupational injuries	Total	Non-Consolidated	cases	40	24	24	37	-	-
	The following items are not allowed	Non-Consolidated	cases	24	13	19	25	-	-
	Closed	Non-Consolidated	cases	16	11	4	12	-	-
	Death	Non-Consolidated	cases	0	0	1	0	-	-
	Total Denka Employees	Non-Consolidated	cases	12	6	12	18	-	-
	The following items are not allowed	Non-Consolidated	cases	6	2	6	13	-	-
		Non-Consolidated	cases	6	4	6	5	-	-
		Non-Consolidated	cases	0	0	0	0	-	-
	Total employees of partner companies	Non-Consolidated	cases	16	13	11	8	-	-
	The following items are not allowed	Non-Consolidated	cases	9	9	8	7	-	-

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
		Closed	Non-Consolidated	cases	7	4	2	1	-	-
		Death	Non-Consolidated	cases	0	0	1	0	-	-
	Total employees of domestic affiliated companies *2		Non-consolidated sites / Domestic & Overseas Key production facilities	cases	7	1	1	1	-	-
		※2	Non-Consolidated	cases	5	0	1	1	-	-
		Closed ※2	Non-Consolidated	cases	2	1	0	0	-	-
		Death ※2	Non-Consolidated	cases	0	0	0	0	-	-
	Total employees of overseas subsidiaries ※2		Non-consolidated sites / Domestic & Overseas Key production facilities	cases	3	3	3	9	-	-
		※2	Non-Consolidated	cases	2	2	2	3	-	-
		Closed ※2	Non-Consolidated	cases	1	1	1	6	-	-
		Death ※2	Non-Consolidated	cases	0	0	0	0	-	-
	Employees of overseas subsidiaries and partner companies ※2		Non-consolidated sites / Domestic & Overseas Key production facilities	cases	1	1	0	1	-	-
		※2	Non-Consolidated	cases	1	0	0	1	-	-
		Closed ※2	Non-Consolidated	cases	0	1	0	0	-	-
		Death ※2	Non-Consolidated	cases	0	0	0	0	-	-
	By cause: Caught in		Non-Consolidated	cases	8	9	7	11	-	-
	By cause: Slips, trips and falls		Non-Consolidated	cases	5	2	1	8	-	-
Occupational injury frequency rate	Denka total		Non-Consolidated	%	0.98%	0.67%	0.44%	0.73%	0.63%	0.2%
	Average of Japan Chemical Industry Association			%	0.41%	0.43%	0.47%	Collecting	-	-
Number of disasters at partner companies (by industry) ※2	Total		Non-consolidated sites / Domestic & Overseas Key production facilities	cases	16	13	11	8	-	-
	Manufacturing		Non-consolidated sites / Domestic & Overseas Key production facilities	cases	4	5	6	3	-	-
	Loading and unloading		Non-consolidated sites / Domestic & Overseas Key	cases	4	4	0	0	-	-

Item		Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
		production facilities							
	Construction	Non-consolidated sites / Domestic & Overseas Key production facilities	cases	8	4	5	5	-	-
Days lost due to work-related injury, death and illness ※3		Non-Consolidated	English	162	205	2	48	-	-

※1 Excluding non-production sites

※2 Main Group Companies

※3 Occupational injury data

Occupational health and safety management system

Item	Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Number of sites acquired ISO45001 certification ※1	Principal manufacturing sites in Japan and overseas	Number of sites	-	-	3	4	-	-
Number of sites acquired OSHMS certification	Principal manufacturing sites in Japan and overseas	Number of sites	-	-	1	1	-	-
Company-wide coverage rate (ISO45001+OSHMS)	Principal manufacturing sites in Japan and overseas	%	-	-	16%	20%	-	-

※1 Includes Ceraya Factory

› [For the status of obtaining other external certifications, click here.](#)

Main unit:8 main production sites (manufacturing 80% of Denka product sales) + 14 sales offices including head office

Consolidated:38 consolidated subsidiaries in Japan and overseas (90% or more of Denka product sales are manufactured)

Non-consolidated sites / Domestic & Overseas Key Group Production Facilities25 major production sites
(manufacturing 90% or more of Denka product sales)

BCP

Our basic policy on BCP are as follows.

- 1 In the event of a crisis or disaster that has a significant impact on business activities, priority must be given to ensuring human safety.
- 2 In fulfilling our supply responsibility, we will prioritize the continuation and restart of important operations and then gradually begin full-scale recovery of all operations.
- 3 Companies will focus on planned recovery based on partnerships with group companies and partner companies.
- 4 In preparation for emergencies, the Company conducts training and drills to foster a crisis management mindset so that employees can respond calmly and quickly in an adaptable manner.
- 5 Companies must implement ongoing improvements through inspection and review of BCP initiatives with the involvement of management.

Internal control

Denka Group's Internal Control

Our Philosophy and Standards

The Denka Group has established materiality (important management issues) that it should address to achieve the SDGs. In order to enhance Corporate Governance, we are working to enhance our internal controls across the Group to ensure compliance with laws and regulations and our Articles of Incorporation and conduct business in a proper and efficient manner to increase corporate value. Recognizing that fulfilling social responsibilities, particularly compliance, is fundamental to the sustainable development of companies, we have established the Basic Policy for Establishing Internal Control Systems and are confirming the status of internal control systems across the Group, making ongoing improvements and enhancements, and have also established the Corporate Behavior Policy, which sets forth standards of behavior for the entire Group.

Raising awareness and thorough dissemination within the Group

These policies and guidelines are communicated by the President to all executives and employees of the Group using various opportunities and means, including his own words, such as, "It is important to share the awareness that acts that undermine social responsibility may incur severe criticism from society and put our very existence at risk." Furthermore, representatives of major Group companies meet with our executives and heads of corporate divisions twice a year to share our corporate philosophy, management policies, and issues, and to discuss and deepen our understanding of specific internal control risks and response policies.

In addition, the Legal Department has established the Denka Global Compliance Program as a global standard training program to ensure that all executives and employees of the Group act in accordance with laws and regulations and corporate ethics. We are also conducting training to disseminate our Corporate Behavior Policy and ensure compliance for all executives and employees of the Group, both in Japan and overseas.

Monitoring, internal audits, and whistle-blowing systems

To confirm the appropriateness of operations across Denka Group, audit committee attends important meetings, conducts audits of Denka and its major subsidiaries, and regularly interviews business divisions and administrative divisions to ascertain the status of their business operations.

Internal Control Department's nine staff members in the Internal Audit Office, an independent organization for monitoring operations, work closely with audit committee to ensure effective and efficient audits, while also conducting internal control status assessments based on the Financial Instruments and Exchange Act (J-SOX) and business and management risk audits targeting organizations and business processes that are not subject to J-SOX. The plan for each audit is formulated with the approval of the President and the Board of Directors, and the results of the audits are reported to the person in charge of the organization being audited, as well as regularly reported to the President, audit committee, and the Board of Directors.

Our operational and management risk audits cover not only our company and its subsidiaries, but also affiliated companies for which we have significant management responsibility, such as those to which we assign representative directors. However, because the number of organizations involved is large, we use self-assessment results to narrow down the scope and scope in advance, thereby improving the efficiency and effectiveness of our audits. During on-site audits, we evaluate the development and operation of internal controls, including risk management, legal compliance, asset management, and business operations, identify inherent risks and issues, and monitor the effectiveness and validity of each process. Furthermore, when we discover problems or issues, we provide advice on issues and improvement measures while respecting the autonomous management of the audited company's executive officers. We also share information with relevant internal departments as necessary to resolve the issues at the audited organization.

Furthermore, starting in fiscal 2021, we have established an Internal Control Promotion Office within Internal Control Department to support the establishment of internal controls at group companies, primarily overseas. Working in tandem with the Internal Audit Office, we are working to improve the non-financial value of the entire group by strengthening group controls based on a framework

(internal control framework) that packages standard internal control initiatives, thereby promoting improvements to business processes in each group organization, risk reduction, and the eradication of fraud within the group.

In addition, as part of audits of business execution divisions, the Accounting Department conducts accounting audits of major subsidiaries, while Legal Department, Environmental & Safety Department, Quality Assurance Department and other related departments conduct audits independently or jointly with Internal Control Department to ensure thorough compliance with laws and regulations in their respective fields of expertise.

Furthermore, with the aim of strengthening internal controls at overseas bases, we have established internal control departments at regional headquarters in Southeast Asia and China, where our bases are concentrated. These departments work in cooperation with Internal Control Department at the headquarters to promote the establishment of internal controls and begin internal audits at the local level.

Furthermore, to complement these internal audits and ensure the early detection and correction of violations of laws, regulations, and internal company rules, we have established a Group internal reporting system, which we encourage everyone to make active use of.

Board of Directors and Skill Matrix

Policy and roles/responsibilities of the Board of Directors

1. Policy on the Operation of the Board of Directors

The Company's Board of Directors functions as a decision-making body and a supervisory body for the execution of operations in order to achieve the sustainable enhancement of corporate value. The Board of Directors conducts its activities based on the following operational policies to ensure the transparency and soundness of management.

- Regular and planned meetings:**The Board of Directors meets at least once a month in principle and may hold emergency meetings as necessary.
- Ensuring diversity and expertise:**The Company appropriately places internal and external directors and conducts discussions from diverse perspectives such as management, legal affairs, finance, and technology.
- Ongoing effectiveness evaluation:**The effectiveness of the Board of Directors is evaluated annually, and improvements are made as necessary.
- Clarification of standards for submission of proposals:**Important management matters are discussed and resolved at the Board of Directors meeting based on pre-established agenda criteria.

2. Roles and Responsibilities of the Board of Directors

The Board of Directors has the following roles and responsibilities in accordance with the Companies Act and internal regulations.

- Determination of management strategies:**Formulation and approval of medium- to long-term management policies and business plans.
- Supervision of business execution:**The Board of Directors supervises the execution of duties by the Representative Director and Executive Officers and takes corrective measures as necessary.
- Establishment of internal controls:**Establishment and supervision of systems for compliance, risk management, and information security.
- Deliberation and resolution of important matters:**Deliberation of important matters that impact corporate value, such as M&A, capital policy, large-scale investment, and personnel & remuneration systems.
- Promoting Dialogue with Stakeholders:**Companies must promote constructive dialogue with shareholders, employees, customers, and local communities, and reflect the results in management.

Number of meetings and attendance of each committee

		Scope	Unit	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Number of Board of Directors meetings		Non-Consolidated	Times	15	14	15
Number of audit committee meetings		Non-Consolidated	Times	14	14	13
Number of The Sustainability Committee held		Non-Consolidated	Times	— (※1)	4	5
Status of meetings of the Nomination and Remuneration Advisory Committee and individual attendance rates of Directors	Number of times held	Non-Consolidated	Times	4	4	6
	Attendance rate of committee members	Non-Consolidated	%	100%	100%	100%
	Attendance rate of individual Directors	YAMAMOTO Manabu	Non-Consolidated	%	100%	100%
		Toshio Imai	Non-Consolidated	%	100%	100%
		Ryosuke Fukuda (※2)	Non-Consolidated	%	100%	100%
		Rumiko Nakata (※2)	Non-Consolidated	%	—	100%
		Toshio Kinoshita	Non-Consolidated	%	100%	100%
		Akiyoshi Yamamoto	Non-Consolidated	%	100%	100%
		Miyuki Matoba	Non-Consolidated	%	100%	100%

※1 The Sustainability Committee has been held since FY2023. It was not held in FY2022.

※2 The following changes to Directors and audit committee members will be made at the 2024 Annual General Meeting of Shareholders to be held on June 20, 2024.

(1) Ms. Rumiko Nakada has been newly elected and appointed as Director.

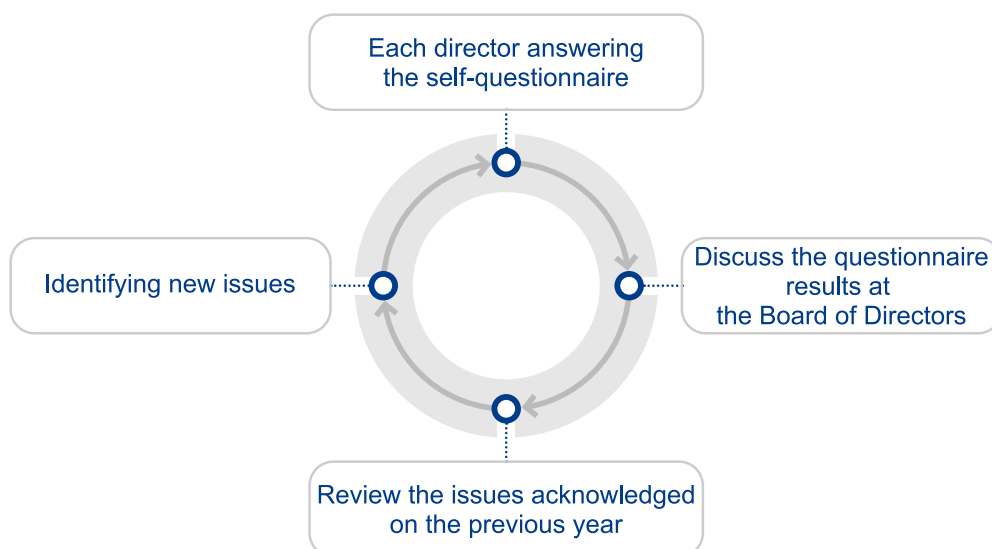
(2) Mr. Yoshiyuki Fukuda has resigned as Director.

※3 Mr. Hayashida and Mr. Kozaka are newly appointed Directors at the 2025 Annual General Meeting of Shareholders, and their attendance in the current fiscal year is not stated.

[List of Directors for the Year Ending March 31, 2025 \(Link to Notice of Convocation of 2024 Annual General Meeting of Shareholders\) \(4.50MB\)](#)

Assessment of effectiveness of Board of Directors

The Company is making ongoing efforts to optimize corporate governance. Each year, the Directors evaluate the operation of the Board of Directors and their own contributions to enhance the effectiveness of governance, identify issues, and make improvements. The results of these evaluations are disclosed in summary form, and after confirming the status of improvements to issues recognized in the previous fiscal year, new issues are identified, and ongoing governance reforms are promoted based on the PDCA cycle.



› Past Efforts for Evaluating Implementation Status (Please refer to the latest DENKA Report)

Standards and composition (skill matrix) for the election of directors

When appointing directors, the Company selects candidates based on the selection criteria for internal and external directors, respectively, under the principle that it is important to appoint a diverse group of individuals with a variety of knowledge, experience, and capabilities. Furthermore, in order for the directors that make up the Board of Directors to be able to focus on monitoring and supervising the execution of duties by the Company, the Company has, in principle, abolished the position of director (Executive Director, Managing Director, etc.). In addition, in order for checks on directors (excluding audit committee members) to be conducted in a flexible manner at the General Meeting of Shareholders, the Company has set the term of office for directors at one year.

Skills Required for Our Board of Directors

Skills		Reason for selecting skills
Corporate management and management planning		To achieve the Denka Vision, Directors with abundant management experience and track records are required to formulate and review management plans and supervise the execution of operations aimed at achieving those plans.
Human Resources Value Creation		In order to achieve HR investment and system reform, a director with abundant knowledge and experience in HR value creation is necessary to realize a company that allows each employee to feel self-fulfillment and growth.
Global business		In order to become specialists who make the world a better place with the power of chemistry, as stated in our purpose in our vision, we need directors who have extensive global business experience.
Financial strategy and accounting		Companies must have directors with solid knowledge and experience in financial strategy and accounting in order to improve profitability and efficiency by pursuing optimal capital structure and advancing selection and concentration of businesses in addition to disclosing accurate financial information.
Legal and Compliance		In order to appropriately respond to increasingly complex laws and regulations in Japan and overseas and conduct fair and trustworthy corporate activities, it is necessary to have directors with solid knowledge and experience in the legal and compliance fields.
ESG and Sustainability	E (Environment)	In order to fulfill our corporate social responsibilities, it is essential to address the three issues of "achievement of carbon neutrality," "sustainable cities and fulfilling daily lives," and "environmental conservation and minimization of environmental footprint," which are prerequisites for continuing our business. To this end, we need directors who possess extensive knowledge and experience in E (environment).
	S (Social)	In order to fulfill our corporate social responsibility through the respect of human rights and participation in the formation of better local communities, in addition to providing safe and high-quality products, we need directors with solid knowledge and experience in S (Social) matters.
	G (Governance)	In order to fulfill our social responsibilities as a corporate citizen, it is essential to establish a more advanced and effective corporate governance system based on transparency and fairness under high ethical standards. To this end, it is necessary to have directors with a solid knowledge and experience of governance.
Creating Business Value and Marketing		In the three focus areas of ICT & Energy, Healthcare, and Sustainable Living, we aim to transform our business portfolio by achieving our target of 100% three-star businesses, which meet the three criteria of specialty, megatrends, and sustainability. To facilitate this transformation, we need directors with deep market insights and extensive business experience based on a broad perspective.
R&D and Intellectual Property		In the three focus areas of ICT & Energy, Healthcare, and Sustainable Living, to create business value, in addition to a track record of promoting innovation, we need directors who have a deep knowledge of science and technology and are familiar with our technologies and intellectual property.
Technical expertise and manufacturing		To facilitate the improvement of productivity through process innovation in the creation of management value and the establishment of a workplace environment that is safe and trusted products, it is essential to have directors who are well-versed in technology and possess extensive experience and sound knowledge in manufacturing sites.
DX		In order to promote business model and organizational reforms through process innovation, it is necessary to have Directors who possess deep knowledge and extensive experience regarding digital technologies and data utilization, as well as the ability to understand and analyze our business and operations and bring about reform.

Skills matrix of individual Directors

			Attribute			Skills						
			Independent Outside	tenure Years	Gender	Corporate management and management planning	Human Resources value creation	Global business	Financial strategy and accounting	Legal and Compliance	ESG and sustainabil	
											E Environment	S (Social)
Chairman of the Board	Toshio Imai			6	M	○	○	○			○	
President and Representative Director	Ishida Ikuo	President, Executive Officer		2	M	○	○	○		○		
Directors	RIMIRU HAYASHIDA	Executive Officer		—	M	○			○			
Directors	Masanobu Kousaka	Executive Officer		—	M			○			○	○
Directors	RUMIKO NAKADA		○	1	F		○					○
Directors	Michael Uchida	Full-time audit committee member		2	M				○	○		○
Directors	Toshio Kinoshita	audit committee member	○	10	M			○	○			
Directors	Akiyoshi Yamamoto	audit committee member	○	10	M	○	○	○				
Directors	Miyuki Matoba	audit committee member	○	4	F					○		○

(Reference: Skill matrix of Executive Officers who are not concurrently serving as Directors)

	Yukio Sasakawa	Executive Officer			M						○	○			○	○	○
	Hara Takashi	Executive Officer			M	○	○	○		○		○		○			

※ Among the knowledge and experience possessed by each candidate, the items that can be particularly expected at the Board of Directors are indicated.

※ F : Female, M : Male

Composition of the Board of Directors and audit committee

		Scope Notes	Scope	Unit	Fiscal Year 2022	Fiscal Year 2023	2024
Number of Directors (Consolidated)	Total	Including outside directors	Consolidated	People	87	76	79
	of which are male employees		Consolidated	People	86	75	77
	of which are female employees		Consolidated	People	1	1	2
	Percentage of female employees		Consolidated	%	1%	1%	3%
Number of Directors (Company)	Total	Including outside directors	Non-Consolidated	People	9	9	9
	of which are male employees		Non-Consolidated	People	8	8	7
	of which are female employees		Non-Consolidated	People	1	1	2
	Percentage of female employees		Non-Consolidated	%	11%	11%	22%
	Percentage of outside directors	Number of directors÷Number of outside directors	Non-Consolidated	%	44%	44%	44%
Number of audit committee members	Total	Including outside directors	Non-Consolidated	People	4	4	4
	of which are male employees		Non-Consolidated	People	3	3	3
	of which are female employees		Non-Consolidated	People	1	1	1
	Percentage of female employees		Non-Consolidated	%	25%	25%	25%
Number of outside directors	Total		Non-Consolidated	People	4	4	4
	of which are male employees		Non-Consolidated	People	3	3	2
	of which are female employees		Non-Consolidated	People	1	1	2
	Percentage of female outside directors		Non-Consolidated	%	25%	25%	50%

Standards for independence of outside directors

The Company selects candidates for outside directors based on substantial criteria, such as whether the candidate is expected to contribute to the improvement of the Company's corporate value, in addition to the requirements for outside directors stipulated in the Companies Act. Specifically, in addition to the outside director requirements stipulated in the Companies Act, the Company has established the following criteria based on the independence standards established by the Tokyo Stock Exchange.

Standards for independence of outside directors

The independence standards for outside directors of the Company are as follows.

- (1) The executing officers ^{(*)4} of major customers ^{(*)1}, major suppliers ^{(*)2}, and major lenders ^{(*)3} that are our major business partners.
- (2) Consultants, accountants, lawyers, etc. who have received money or other property exceeding 10 million yen annually from the Company in addition to officer remuneration during the most recent fiscal year
- (3) If the person who has obtained the property set forth in (2) above is a group, the person must belong to a group whose total payments from the Company in the most recent accounting fiscal year accounted for 2% or more of the group's sales or total income.
- (4) Persons who fall under (1) to (3) above during the past year
- (5) Spouses or relatives within the second degree of kinship of the following persons (excluding persons of no importance)
 - ① Persons corresponding to (1) to (4) above
 - ② Persons who are or were an executive officer of the Company or any of its subsidiaries during the past or current period of one year

※1 Major customers: Customers for which payments from the relevant customer accounted for 2% or more of our total sales in the most recent fiscal year

※2 Major suppliers: Suppliers for which the amount paid by the Company accounts for 2% or more of the supplier's sales in the most recent fiscal year

※3 Major lenders: As of the most recent fiscal year-end, lenders that are indispensable for our fund procurement and to which we are dependent to the extent that there are no alternatives

※4 Executive Officers: Executive Directors, Executive Officers, Employees, etc.

Director remuneration

Regarding the remuneration of Directors (excluding Directors who are audit committee members), within the total amount resolved at the General Meeting of Shareholders, remuneration is provided according to the roles and responsibilities of each Director, and to enhance objectivity and transparency, the decision is made at the Board of Directors meeting after receiving advice and recommendations from the Nomination and Remuneration Advisory Committee, and established as an internal rule. The remuneration system for Directors consists of a fixed monthly basic remuneration, performance-linked remuneration in cash aimed at raising awareness of company-wide and individual performance for each fiscal year as a sound incentive for sustainable growth, and stock remuneration aimed at raising awareness of improving medium- to long-term performance and increasing corporate value. However, considering the nature of their duties, outside Directors and non-executive Directors receive only basic remuneration.

Director Remuneration System

(1) Image of Basic System (Executive Directors)

Performance-linked remuneration (cash, fixed)	Performance-linked compensation (cash, variable)	Stock remuneration
6	3	1

※ The above percentages are approximate ratios when the standard evaluation of individual performance-linked remuneration is applied to achieve operating profit based on the management plan.

(2) Contents of Each Remuneration

Basic remuneration

The remuneration of Directors is determined in accordance with their roles and responsibilities, taking into consideration the level of employee salaries, and fixed amounts are paid in cash every month.

Performance-linked remuneration

Performance-linked remuneration consists of company-wide performance-linked remuneration and individual performance-linked remuneration. However, the Chairman and President are only provided with company-wide performance-linked remuneration, and the Chairman (non-executive director) without representation rights is not provided with remuneration.

Company-wide performance-linked remuneration is linked to consolidated operating profit, which is a key target value in the Company's management plan, and the total amount to be paid is determined and allocated according to the roles and responsibilities of each Director, and paid promptly after the financial results are finalized. However, if consolidated operating profit is less than a certain amount, if a large special loss occurs, or if a serious compliance violation occurs, remuneration will not be paid or the amount paid will be reduced.

Individual performance-linked remuneration is paid after the financial results are finalized in accordance with internal regulations established by the Company in advance, linked to individual evaluations of the achievement of financial and non-financial targets for each Director.

Stock compensation

Stock-based compensation is a system that utilizes a trust scheme, and the Company provides Directors with Company shares through the trust at the time of their retirement based on the number of points granted monthly according to their position in accordance with the Company's share grant regulations.

The amount contributed to the trust as funds required for granting Company shares to Directors is capped at 40 million yen per year.

(3) Method of determining individual director remuneration

The contents of individual Directors' remuneration, etc. are determined by the Board of Directors based on the recommendations of the Nomination and Remuneration Advisory Committee, and established as internal rules.

Furthermore, with regard to individual performance-linked remuneration for Directors, the President, to whom this authority has been delegated, evaluates each individual based on internal rules determined by the Board of Directors and makes a decision. The Board of Directors establishes the amounts of remuneration linked to individual evaluations in advance in internal rules, and receives reports on the contents, in order to ensure that this authority is appropriately exercised by the President.

2024 Director Compensation

Category	Staff	Remuneration amount	Breakdown					
			Monetary remuneration				Stock compensation	
			Basic remuneration		Performance-linked remuneration			
			Staff	Total	Staff	Total	Staff	Total
Directors (excluding directors who are audit committee members)	6	203 million yen	6	181 million yen	—	—	3	21 million yen
(including Outside Directors)	(2)	(12)	(2)	(12)	(—)	(—)	(—)	(—)
Director (audit committee member)	4	77	4	77	—	—	—	—
(including Outside Directors)	(3)	(38)	(3)	(38)	(—)	(—)	(—)	(—)
Total	10	280	10	258	—	—	3	21
(including Outside Directors)	(5)	(51)	(5)	(51)	(—)	(—)	(—)	(—)

Risk Management

Denka's Risk Management System

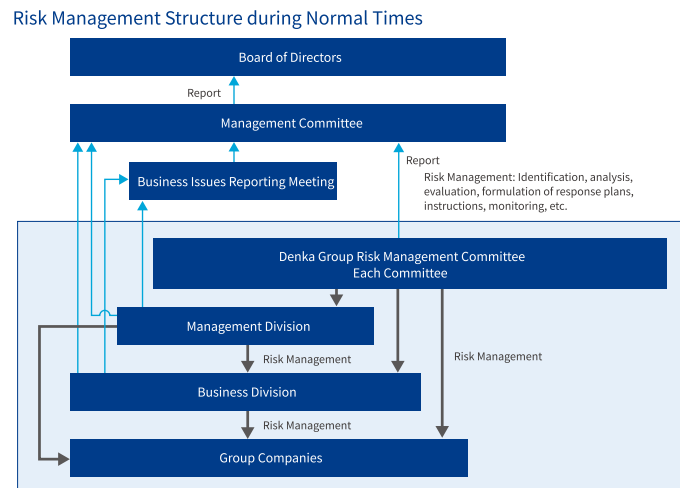
The Company's Board of Directors creates an environment in which each Executive Officer can take risks while striving to establish a risk management system for the entire Group. To achieve this purpose, at the Management Committee and Business Issues Reporting Meetings held every month, we conduct discussions on risk management taking into account economic value such as profitability, including understanding and assessment of various risks that may affect the management of the Denka Group, preventing risks from becoming apparent, and formulating countermeasures to minimize the adverse effects of risks that have become apparent. Furthermore, the Business Issues Reporting Meetings monitor various risks, including the status of achievement of business plans.

Moreover, with regard to legal, capital investment, environmental, health and safety, quality control, and startup investment risks, cross-organizational committees conduct comprehensive and specialized risk management.

In addition, our management departments, including the Legal Department, Quality Assurance Department, and Environmental & Safety Department, conduct risk management for the Group as a whole with regard to the relevant risks based on various common Group rules.

Furthermore, with regard to risks specific to each business division, not only does the relevant division conduct risk management, but also with regard to those risks at Denka Group companies, Directors dispatched from the relevant parent company division to the Group company conduct risk management in consultation with the parent company's specialized departments for legal affairs, environment, health and safety, and quality control.

Regular risk management system



※ The Denka Group's risk management is based on ISO31000, an international standard, and the COSO ERM Integrated Framework, which was developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Integrated risk management and Risk Management Committee

Denka Group is working on integrated risk management, a cross-group risk management system, amid increasing business uncertainty. The Risk Management Committee, chaired by the President, analyzes the risks of the entire Group by their impact and frequency, and has identified 10 "priority risks," including earthquakes and tsunamis, serious crimes against the Company by third parties, economic crises, economic fluctuations, and exchange rate fluctuations. Based on these priority risks, we are conducting monitoring activities such as strengthening communication networks in the event of a disaster and conducting real-time disaster response drills by management and plant executives. Monitoring is regularly reported to the Board of Directors through a

Management Committee independent of audit committee, and the Board is also responsible for regularly reviewing the proper functioning of these risk management systems. Denka Group will continue to enhance the effectiveness of its countermeasures through trial and error, reduce the impact of risks on business performance, and strive to increase corporate value over the medium to long term.

Response to 10 prioritized risks

Major category	Middle classification	Subcategory	Risk owner
Business risks	Disaster	Earthquake and tsunami	General Affairs Department
Business risks	Accidents and crimes	Serious crimes against the Company by a third party (terrorism, arson, threats, etc. in Japan)	General Affairs Department/ Environmental & Safety Department
Management risks	Business environment (society, economy, politics)	Inability to export or develop business due to geopolitical risks	Corporate Planning Department
Management risks	Business environment (society, economy, politics)	Economic crises, economic fluctuations, and exchange rate fluctuations	Accounting Department/ Finance Department
Management risks	Affiliated companies (Group companies, etc.)	Failure of group governance	Internal Control Department
Business risks	Disaster	Climate change risks (cold wave, heat wave, drought, long rain, bad weather, etc.)	Sustainability Promotion Department
Business risks	Accidents and crimes	Occupational accidents (fire/explosion at factory, etc.)	Environmental & Safety Department
Business risks	IT and information management	System-wide failure due to cyber attacks or unauthorized access	Digital Strategy Department
Business risks	Products and Services	Problems due to product/service quality defects (product accidents, drug-induced damage, large-scale food poisoning, foreign matter contamination, large-scale recalls, etc.)	Quality Assurance Department
Business risks	Violation or nonconformity with laws and regulations	Concealment, falsification, or misrepresentation of information (Product counterfeiting, falsification of quality, performance, or data, concealment of occupational accidents, etc.) Violation of laws and regulations, contracts, or internal rules ⇒Global Compliance	Legal Department/Internal Control Department

Number of Risk Management Committee meetings

	Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Number of Risk Management Committee meetings	Non-Consolidated	Times	12	12	12	12

Whistleblowing system

Whistleblowing system

1. Introduction

The Denka Group has established the Denka Group Corporate Ethics Policy and the Denka Group Whistleblower Policy to ensure compliance management across the Group and to facilitate the early detection and correction of compliance issues. Based on these policies, we have also established and are operating a Group-wide whistleblower system called the Denka Group Helpline.

2. Intended Users and Content

The persons eligible to use the Denka Group Help Line and the contents that can be reported are as follows.

Users	Whistleblowing Contents
Employees and officers of Denka Group companies <ul style="list-style-type: none"> Persons who are officers and employees (including contract and temporary staff) Family members living together Those who left the company within one year Applicants for employment 	<ul style="list-style-type: none"> Acts of violation of laws and regulations, human rights infringement, or internal rules by Denka Group companies and their officers and employees Human rights violations by business partners of Denka Group companies
Denka Group companies' cooperative company personnel (※1) <ul style="list-style-type: none"> Company Officers and Employees Those who left the company within one year 	<ul style="list-style-type: none"> Acts of violation of laws and regulations, or acts that may lead to violation of laws and regulations by Denka Group companies in Japan and their officers and employees
Denka Group companies' supply chain-related business persons (2) <ul style="list-style-type: none"> Company Officers and Employees 	<ul style="list-style-type: none"> Acts by Denka Group companies, and their officers and employees, that cause negative impacts on the human rights of the officers and employees of supply chain-related businesses (Note 3) Acts by supply chain related business operators that cause negative impact on the human rights of their officers and employees (*)

※1 Refers to individuals engaged in business based on contracts such as subcontracting agreements with Denka Group companies.

※2 Persons related to businesses involved in the supply chain of Denka Group companies (including sources of raw materials, outsourced service providers, and subcontractors and sub-subcontractors).

※3 Examples include, but are not limited to, discrimination in the workplace, infringement of honor or privacy, and excessive working hours.

※4 Only those directly related to the Denka Group companies' businesses, products, or services.

3. How to Use

According to the classification of intended users, you can report to the following internal and external contacts via the designated methods such as e-mail.

(Reports that are intended to defame others, provide intentional false information, or serve personal interests will not be accepted.)

● Employees and other personnel of Denka Group companies

Both internal and external contacts can be used.

General compliance (internal contact)

- Denka Co., Ltd. Ethics Committee Secretariat
(Head of audit committee and Legal Department)
✉ Email helpline@denka.co.jp
- General Affairs Departments of Group companies
- Denka Labor Union (Denka Co., Ltd. only)

General compliance (external contact)

- Nishimura & Asahi
☎ Phone 03-6250-7606
(Weekdays 10:00~19:00)
✉ Email denka-help@nishimura.com

Harassment (internal contact)

- Denka Co., Ltd. Ethics Committee Secretariat
(Head of audit committee and Legal Department)
✉ Email helpline@denka.co.jp
- General Affairs Departments of Group companies
- Denka Labor Union (Denka Co., Ltd. only)

Harassment (external contact)

- Fair Link Consulting Co., Ltd.
☎ Phone 0120-911-705
(Weekdays 9:30-20:30)
✉ Email denka-help@fairlinks.co.jp
🌐 Dedicated Web <https://fairlinks.co.jp/denka/>

● Persons from cooperating companies of Denka Group companies in Japan

● Persons from supply chain-related businesses of Denka Group companies

Dedicated contact point

- Nishimura & Asahi
☎ Phone 03-6250-7606
(Weekdays 10:00~19:00)
✉ Email denka-help@nishimura.com

Information to be provided to the whistleblowing hotline

When making a report, please provide the following information.

- Name of whistleblower (if anonymous, please state), affiliation, relationship with Denka Group companies
- Details of the misconduct
(Please provide details as much as possible regarding “when,” “where,” “who,” “what,” “how,” and “why.”)
- How the whistleblower came to know of the above misconduct
- Presence of evidence records regarding the above misconduct
- Whether or not to be contacted in the future and contact information

4. Response after Whistleblowing

After receiving a report, the hotline will notify the Denka Company Limited Ethics Committee Secretariat (Head of audit committee and Legal Department) of the details of the report.

The Ethics Committee Secretariat will sort and verify the contents of the report, and if it is deemed necessary to investigate, it will assemble an investigation team to investigate, with the protection of the whistleblower as its top priority, and if a problem is found, the company will take corrective measures. (If the perpetrator is a person related to a business related to the supply chain, we will consider necessary and possible responses, such as requesting that the business related to the supply chain take corrective measures.)

Whistleblowers will, in principle, receive feedback through the whistleblowing hotline regarding the need for investigation (within 20 days of receiving the whistleblowing report), investigation results, and corrective actions. However, if the whistleblower is anonymous and the whistleblower's contact information is unknown, it may not be possible to confirm the whistleblowing report, conduct subsequent investigations, or provide feedback on the results even if the report is made to the whistleblowing hotline.

The handling of personal information (information that can identify individuals such as name, address, and email address) provided through the whistleblowing system will be used only to the extent necessary for confirming whistleblowing contents, conducting investigations, and contacting whistleblowers, and will be managed in accordance with the [Denka Group Personal Information Protection Basic Policy](#).

5. Protecting Whistleblowers

The whistleblowing contact points maintain strict confidentiality regarding the names of whistleblowers and the content of whistleblowing. Furthermore, Denka Group companies ensure that internal parties, including secretariats of ethics committees, investigation teams, investigation collaborators, and compliance personnel, receiving information from whistleblowing contact points uphold confidentiality obligations, including ensuring the anonymity of whistleblowers. Denka Group also strictly prohibits its officers and employees from seeking whistleblowers or investigation collaborators, treating them unfavorably, or engaging in retaliatory acts.

Number of whistleblowing cases

Item			Scope	Unit	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	FY2025 Targets	2030 Targets
Whistleblowing cases	Whistleblowing cases	Total	Non-Consolidated	cases	23	46	41	-	-
	Number of internal whistleblowing cases	Fraudulent acts ※1	Non-Consolidated	cases	3	4	2		
		Harassment	Non-Consolidated	cases	8	28	25		
		HR and labor services regulations	Non-Consolidated	cases	11	14	9		
		Others	Non-Consolidated	cases	2	0	5		
	Whistleblowing breakdown rate (%)	Fraudulent acts ※1	Non-Consolidated	%	11%	9%	5%		
		Harassment	Non-Consolidated	%	36%	61%	61%		
		HR and labor services regulations	Non-Consolidated	%	46%	30%	22%		
		Others	Non-Consolidated	%	7%	0	12%		
	Number of consolidated employees/whistleblowing cases		Non-Consolidated	People	291	151	160	150	100
Breakdown of reports by office	Fraudulent conduct	Head Office ※2	Non-Consolidated	cases	-	0	1	-	-
		R&D facilities and plants ※3	Non-Consolidated	cases	-	11	0		
		Group companies	Non-consolidated sites / Domestic & Overseas Key production facilities	cases	-	1	1		
		Subtotal	Consolidated	cases	-	12	2		
	Harassment	Head Office ※2	Non-Consolidated	cases	-	4	6		
		R&D facilities and plants ※3	Non-Consolidated	cases	-	6	11		
		Group companies	Non-consolidated sites / Domestic & Overseas Key production facilities	cases	-	11	8		
		Subtotal	Consolidated	cases	-	21	25		
	HR and labor services regulations	Head Office ※2	Non-Consolidated	cases	-	0	2		
		R&D facilities and plants ※3	Non-Consolidated	cases	-	11	2		
		Group companies	Non-consolidated sites / Domestic & Overseas Key production facilities	cases	-	1	3		
		Subtotal	Consolidated	cases	-	12	7		
	Total	Head Office ※2	Non-Consolidated	cases	-	4	9		
		R&D facilities and plants ※3	Non-Consolidated	cases	-	28	13		
		Group companies	Non-consolidated sites / Domestic & Overseas Key production facilities	cases	-	13	12		
	Total		Consolidated	cases	-	45	34		

※1 Includes items that were not recognized as fraudulent acts

※2 Head office only

※3 Only 8 major production sites in Japan

System for legal review of contracts

In order for Denka Group companies to conduct fair transactions with customers and suppliers, it is essential to examine contract terms from legal and business perspectives. Therefore, Denka has established and operates a system that uses a proprietary ICT system (commonly known as the "Denka Legal Tool" workflow) to complete the process from examination by the Legal Department prior to contract conclusion to management of signed original contracts on the company intranet. Denka is working to facilitate the early and efficient detection and handling of risks to be considered while enhancing the convenience of contract examination and management of original contracts.

Furthermore, Denka is promoting the realization of a work-life balance for its employees through work style reform. Employees can conduct legal affairs such as legal review and contract negotiation from anywhere in the world without necessarily coming to the office. To maintain a prompt internal approval process, Denka utilizes tools such as LegalKatana and the ringi system, and regularly uses ICT tools such as a domestic and overseas case law and legal literature search system, web conferencing system, and provision of legal information such as contract templates on the intranet for employees. Denka strives to maintain and improve the quality, efficiency, and productivity of its legal affairs.

An internal intranet providing legal information ("Legal4Denka")



Measures against corruption and anti-social forces

Measures Against Corruption

The Denka Group prohibits all forms of corruption, including acts that violate laws and regulations such as bribery and excessive entertainment and gifts that exceed social norms. Furthermore, the Business Conduct Guidelines stipulate that Denka Group officers and employees must comply with the anti-corruption laws of each country and region in which the Denka Group conducts business, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act 2010, and the Japanese Unfair Competition Prevention Act. The Denka Group also prohibits involvement in all forms of bribery, including bribery through third parties. Moreover, the Business Conduct Guidelines require Denka Group officers and employees (all executives and employees) to limit entertainment and gifts to legal and socially acceptable ranges, and to select business partners based on the best possible choices for the company in accordance with the Denka Group Sustainable Procurement Policy and Guidelines, rather than for personal gain.

Denka also raises awareness regarding the prevention of bribery when conducting transactions overseas and when expanding businesses into overseas markets, conducts due diligence to ensure that there are no corruption risks with target companies prior to M&As, and provides education to overseas subsidiaries.

In addition, a group company in Singapore has established internal regulations regarding entertainment and gifts that are more stringent than those required by local laws.

Companies must not engage in any transactions with anti-social forces or individuals involved in money laundering.

The Denka Group Ethical Regulations strictly prohibit the provision of benefits to anti-social forces. Furthermore, the Business Conduct Guidelines stipulate that Denka Group officers and employees must not have any relationship with anti-social forces and must respond firmly to unjust demands, including legal action. The Guidelines also state that Denka Group officers and employees must not be involved in or cooperate with criminal acts such as drug dealing, terrorism, arms smuggling, fraud, or money laundering.

Through the Denka Global Compliance Program, Denka conducts training for Denka Group officers and employees in Japan and overseas on preventing bribery and money laundering and cutting off relationships with anti-social forces and criminal organizations. In addition to the above, the Legal Department is working to include anti-social force exclusion clauses and anti-corruption clauses in various contracts. In Japan, the General Affairs Department is taking the lead in these efforts, and, when necessary, is working with outside lawyers, police authorities, and specialized institutions to ensure that the Denka Group has no relationships with anti-social forces.

Export control

Denka prohibits the export of products and technologies that may lead to the development and manufacture of weapons of mass destruction in accordance with security export control. The Denka Group Ethics Regulations and Denka's company-wide internal regulation, Security Export Control Regulations, require all officers and employees to comply with export control laws and regulations.

Based on these regulations, Denka has established an Export Control Committee chaired by the President, and maintains and operates a security export control system that conducts product and technology applicability assessments and customer transaction screenings with the Legal Department serving as the secretariat. Furthermore, Denka strives to ensure compliance with security export control in accordance with the Foreign Exchange and Foreign Trade Act and the Export Trade Control Order through the implementation of internal audits and attendance at external seminars.



In addition, the Business Conduct Standards stipulate that Denka Group employees must comply with the export control laws and regulations of each country applicable to each export transaction.

The Legal Department, which serves as the secretariat of the Export Control Committee, requires Denka Group employees in Japan and overseas to comply with the export control laws and regulations of each country through the Denka Global Compliance Program, and provides security trade control training (e.g., Practical Approaches to Cargo and Technology Export Control) for employees in Japan. Furthermore, to realize a swift in-house approval process, we are utilizing ICT tools to conduct jurisdiction and eligibility assessments and customer transaction/chemical substance screening workflows (commonly referred to as the Export Control Master workflow) in cooperation with relevant departments, and are striving to ensure compliance with security trade control.

Prevention of insider trading

Denka Group employees must comply with laws and regulations regarding securities transactions and must not engage in insider trading. To this end, the Denka Group Ethics Regulations clearly state these requirements. Furthermore, the Denka Group has established the Internal Information Management and Insider Trading Prevention Regulations, which prohibit information leaks, require prior notification when buying or selling Denka shares or the shares of business partners, and prohibit all transactions from two weeks prior to the announcement of financial results. The Business Conduct Standards also clearly state that insider trading is prohibited and explains that insider trading not only constitutes improper use of the Company's information assets, but also harms the fairness of securities transactions.

Denka requires officers and employees of the Denka Group in Japan and overseas to comply with laws and regulations regarding securities transactions in each country through the Group-level compliance training program, the Denka Global Compliance Program. In addition to these measures, the General Affairs Department posts notices on the intranet prohibiting the buying and selling of the Company's shares from two weeks prior to the scheduled date of financial results announcement until the date of announcement. The Department also regularly sends emails to all officers and employees to raise awareness of preventing insider trading prior to the announcement of financial results.

Going forward, Denka will conduct compliance training for officers and employees of Group companies in Japan and overseas in a planned manner, in addition to using the intranet, to raise awareness of information protection as well as laws and regulations regarding securities transactions and internal rules, and will strive to ensure appropriate information management and prevent insider trading.

Tax Policy

The Denka Group has established the Denka Group Ethical Regulations as the foundation of its compliance system to ensure thorough compliance with laws and regulations through the establishment of internal rules and their appropriate implementation. Furthermore, we are striving to foster a high level of ethical awareness through training and education for officers and employees. In terms of taxation, our basic policy is to comply with the tax laws and regulations of each country and region where the Denka Group conducts business as well as to correctly understand the intent of these laws and regulations and fulfill our tax obligations appropriately. Based on this policy, we have established the Denka Group Basic Policy on Taxation. We practice transparent tax procedures, appropriately manage tax risks, and contribute to the development of local communities and the sustainable enhancement of corporate value through sound tax planning and the appropriate use of preferential tax systems.

Denka Group Basic Policy on Taxation

The Denka Group recognizes that paying taxes is one of the basic and important social responsibilities that companies should fulfill. Accordingly, we conduct appropriate tax payment under the following policies and strive to contribute to the development of the economy and society.

1. Compliance with Laws and Regulations

The Denka Group complies with the tax-related laws and regulations of each country and region and conducts appropriate tax reporting and payment.

2. Tax governance

The Denka Group has established a system for conducting tax practices in accordance with this Basic Policy and other internal regulations under the Executive Officer in charge of the Accounting Department appointed by the Board of Directors of Denka Company Limited. The Accounting Department of Denka Company Limited addresses various tax issues in cooperation with Group companies, and reports to the Executive Officer in charge of the Accounting Department on important matters, and submits matters to the Board of Directors or reports to the Board of Directors in accordance with internal standards.

3. Optimization of Tax Costs

The Denka Group respects the intent of tax-related laws and regulations in each country and region while conducting appropriate tax planning aimed at increasing corporate value. We do not engage in tax planning that is not in line with our business activities, including the use of tax havens for the purpose of tax avoidance.

Furthermore, we promote the use of preferential tax systems within the scope of normal business activities, and strive to eliminate double taxation on the same economic benefit.

4. Managing Tax Risks

The Denka Group conducts sufficient examination by incorporating the expertise of external specialists for cases where tax treatment is unclear, and makes prior inquiries to tax authorities as necessary to reduce risks.

In transactions with foreign related parties, the Denka Group applies appropriate transaction prices based on the arm's length principle and prepares transfer pricing documentation in accordance with the systems of each country and region.

5. Relationship with Tax Authorities

The Denka Group sincerely responds to requests from tax authorities of each country and region, and strives to build and maintain sound and good relationships with such tax authorities.

Established on August 7, 2025
DENKA COMPANY LIMITED

Information security management

Strengthening of group ICT governance

The Denka Group is promoting business process reforms in all fields of corporate activities, including research, manufacturing, sales, and management, and striving to utilize and enhance ICT (Information & Communication Technology) across the Group to improve work efficiency and strengthen governance. At the same time, to protect the Denka Group's information assets from leaks, falsifications, and sophisticated cyber attacks that may occur due to the use of ICT, the Denka Group is establishing security infrastructure at the Group level and strengthening preventive maintenance based on risk management. Furthermore, the Denka Group has established a set of information security regulations, including the following Information Security Basic Policy.



Basic Policy on Information Security

Article 1 (Compliance with Laws and Regulations)

The Company Group complies with laws, regulations, and other social norms regarding information security.

Article 2 Establishment of Information Security Governance Structure

The Denka Group strives to establish an information security and governance system through the development of regulations in order to ensure the safe and appropriate management and utilization of information assets in accordance with the Denka Group Code of Ethics.

Article 3 (Operation of Information Security Governance System)

The Company Group is promoting the ICTization of its internal operations and preventing unauthorized intrusions to its information systems, leaks, theft, tampering, destruction, and loss of information assets, and strives to ensure the appropriate operation of its information security and governance systems.

Article 4 (Information Security Training)

The Company Group will continue to raise awareness of important matters regarding the management of information assets and information security through employee training such as e-learning.

Article 5 (Prevention and Response of Information Security Incidents)

The Company Group strives to prevent problems regarding information security for its information assets. In the unlikely event that a problem occurs, the Company will respond promptly to the problem and work to prevent its recurrence.

Article 6 (Ongoing Improvement of Information Security Governance System)

The Company Group will continue to review its activities regarding information security and governance systems and make improvements to these systems in accordance with the demands of the times.

Article 7 (Enforcement)

This Policy is effective as of April 1, 2021.

Management of website published information

Denka ensures management transparency by disclosing timely and appropriate company information in accordance with the Financial Instruments and Exchange Act and the timely disclosure rules established by the Tokyo Stock Exchange. Furthermore, even for information that is not required to be disclosed by laws and regulations, Denka strives to actively disclose information that is deemed useful for stakeholders. Denka also seeks to deepen communication with stakeholders by utilizing as many opportunities as possible, such as earnings briefings, company briefings for individual investors, and shareholders meetings, and reflects the opinions received in its management and business activities.

Moreover, for timely disclosure information announced by Denka, the Company confirms the information disclosure on the Tokyo Stock Exchange before publishing it on the Denka website, thereby preventing the preemptive acquisition of timely disclosure information by unauthorized third parties. Denka has also established a website management system, limited working environments, installed protective systems, and established response procedures for emergencies.

In the future, Denka will continue to promote the strengthening of ICT governance for domestic and overseas Group companies based on internal controls, and aims to avoid losses and further enhance corporate value through these measures.

Efforts for Information Security

At Denka, we are strengthening our three-pronged approach of ① systems, ② processes, and ③ education as part of our efforts to enhance information security. As a system enhancement to protect information assets, we are working to prevent cyber attacks and information leaks. In terms of process development, we aim to establish a crisis management system to respond to major incidents in information security. In terms of education development, we aim to deepen the understanding of information security among all employees so that each employee can safely and reliably use information assets in their work. By continuing to review risk management in information security, we will strive to avoid risks and minimize losses.

Item	Scope	Unit	Fiscal Year 2023	Fiscal Year 2024
Percentage of employees who have taken information security training	Consolidated	%	-	100%

- ※1 Employees without company-provided PCs and email addresses are also eligible for group training. Factories include group companies within the premises.
- ※2 Conducted at DCG, Icon, DISB, Denka Astec, Denka Azumin, Denka Elast Solution, Denka Polymer, Kyushu Plastic, and Hinode Chemical Industry, mainly through affiliated companies with manufacturing bases.
- ※3 E-learning is not available for employees who do not have company-owned PCs and email addresses.

Basic Policy on the Protection of Personal Numbers and Specific Personal Information

[Basic Policy on Protection of Personal Numbers and Specific Personal Information \(98.8KB\)](#)



Intellectual property management

[Basic Policy]

Companies must respect the intellectual property rights of the Company and others, and contribute to the Company's management through intellectual property activities.

Main Intellectual Property Activities

- Companies conduct regular investigations to avoid infringing on other companies' patent rights, and share the information with relevant departments to strengthen the prevention of rights infringement.
- In order to protect our intangible assets, we acquire intellectual property rights and take necessary legal action against those who infringe our rights.
- Among our intellectual property rights, those with a low degree of contribution to our business are actively seeking partners who can make use of these rights, with the aim of building a business ecosystem.
- Through intellectual property activities, we facilitate our business in collaboration with stakeholders inside and outside the Company.

Intellectual property activities

1 Policy

Through the three elements of specialty, megatrends, and sustainability, we will create new businesses, develop new markets in collaboration with other companies, and acquire intellectual property to enhance the Denka Group's intangible asset value. We will also utilize intellectual property information in decision-making processes (IP landscape^{*}).

※ Method of utilizing analysis results (current situation overview, future outlook, etc.) obtained by incorporating IP information into management and business information

2 Intellectual Property Approach for Creating Business Value

During the previous management plan, Denka Value-Up (2018-2022), we globalized our business and increased the ratio of overseas patents while building the intellectual property (IP) portfolio required for each business.

Furthermore, to contribute to the transformation of our business portfolio, we introduced IP landscape activities in 2021 to use the intellectual assets we have acquired more efficiently.

To achieve the goals of our management plan, Mission 2030, we will strengthen our management foundation and promote the following intellectual property activities to contribute to the creation of business value.

1. Acquisition and utilization of intangible assets to promote our businesses
2. Provision of information useful for selecting partner companies for collaboration and M&A candidates
3. IP landscape activities for creating new businesses

3 Status of intellectual property holdings

Item			Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Number of patents/Percentage of total	Number of patents	Total	Non-Consolidated	cases	5,757	5,525	6,473	6,382
		Overseas	Non-Consolidated	cases	2,485	2,446	2,604	2,692
		Overseas	Non-Consolidated	cases	3,272	3,079	3,869	3,690
	Percentage of patent ownership	Overseas	Non-Consolidated	%	43%	44%	40%	42%
		Overseas	Non-Consolidated	%	57%	56%	60%	58%
Number of domestic and overseas patents by business segment	Overseas	Total	Non-Consolidated	cases	-	-	2,589	2,692
		Electronics and Innovative Products	Non-Consolidated	cases	-	-	968	1,059
		Life Innovation	Non-Consolidated	cases	-	-	196	194
		Elastomers & Infrastructure Solutions	Non-Consolidated	cases	-	-	957	849
		Polymer Solutions	Non-Consolidated	cases	-	-	250	280
		Research on next-generation themes	Non-Consolidated	cases	-	-	218	310
		Total	Non-Consolidated	cases	-	-	3,823	3,690
	Overseas	Electronics and Innovative Products	Non-Consolidated	cases	-	-	1,695	1,690
		Life Innovation	Non-Consolidated	cases	-	-	635	547
		Elastomers & Infrastructure Solutions	Non-Consolidated	cases	-	-	717	615
		Polymer Solutions	Non-Consolidated	cases	-	-	444	424
		Research on next-generation themes	Non-Consolidated	cases	-	-	332	414

The following shows the number of domestic and overseas patents held by each business. The Elastomers & Infrastructure Solutions has a high percentage of domestic patents because its infrastructure-related business is mainly focused on the domestic market. On the other hand, the Electronics and Innovative Products and Life Innovation have a higher percentage of overseas patents because they are developing their businesses globally. Furthermore, these two divisions are also increasing the percentage of overseas patents in anticipation of future markets for research that is expected to yield long-term results, such as fundamental research and next-generation research themes. In the future, by utilizing IP landscape initiatives to facilitate business growth in the short term, we will actively pursue differentiation through the use of intangible assets, seek partners that can leverage our strengths, and aim to create new markets and expand existing ones.

Quality Assurance Management

Basic Policy (Quality Policy)

The Denka Group has established quality policies in line with its management plan Mission 2030 and is conducting quality assurance activities for a wide range of products from organic chemistry using synthetic resins and resin processing, inorganic chemistry using high-performance powder control technologies, to the bio field with technologies for culturing bacteria and viruses and producing antibodies and antigens.

Quality Policy (Fiscal 2025)

The Denka Group aims to achieve zero occurrence of serious quality accidents by establishing measures to prevent recurrence of inappropriate quality practices and ensuring compliance with quality standards through the promotion and improvement of quality management and the provision of safe, stable, and high-quality products and services. Through these efforts, we will earn the satisfaction and trust of our stakeholders and contribute to the creation of new value.

Quality assurance system and recurrence prevention measures for inappropriate quality

Promotion of measures to prevent recurrence of inappropriate quality

The Denka Group sincerely accepts the full extent of inappropriate quality conduct that has come to light, as well as the points of indication and suggestions from the external investigation committee, and has established the four "Implementation of Measures" items below to address these issues. The Denka Group will continue to put forth its utmost efforts as a group to address these issues, strengthen compliance, prevent recurrences, and restore trust.

1. Management

Governance, management strategy, and company-wide systems

2. Quality assurance function

Quality assurance systems, quality assurance programs, certification standards management, audits/surveillance

3. Quality assurance

Passing on of technology/De-personalization/Strengthening of workplace

4. HR

HR Strategy and Development of HR

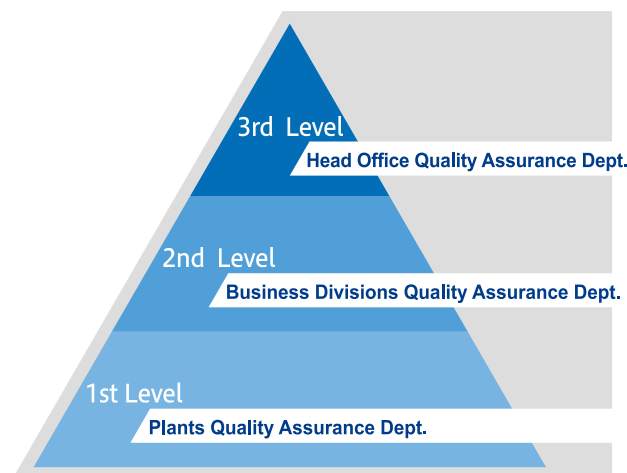
※ Results of external investigation committee on inappropriate quality

[Press Release on December 11, 2023](#)



Quality assurance system through collaboration among three divisions

The Company has established a Quality Assurance Department at its head office, business divisions, and factories. By promoting organic collaboration among these three layers of Quality Assurance Departments, the Company is working to improve overall quality levels across the Denka Group.



Product safety and quality risk assessment

The quality risks of each product are changing due to the ongoing changes in quality requirements and laws and regulations. As part of our response to these risks, we review our quality risk assessment from market and business environment perspectives every year, and implement initiatives to reduce quality risks in a planned manner according to the nature and magnitude of the risks.

Management of chemical substances and product safety

Our Group constantly monitors domestic and overseas legal revision information regarding chemical substances. For the information of chemical substances contained in products subject to legal revision, we provide revised SDSs and notify customers of the information on the contents of the products. If changes to product components or production processes are required to comply with revised laws and regulations, we will respond swiftly and appropriately.

Quality and safety of pharmaceuticals

The Denka Group has established the following Quality Assurance Policy, which is the highest internal regulation regarding quality assurance: "In regard to products, ensure compliance with laws and regulations and improve customer satisfaction." In compliance with this policy, the Denka Group conducts manufacturing and provision of reliable products under management in accordance with GMP Ordinance (Standards for Manufacturing Control and Quality Control for Pharmaceuticals)/GQP Ordinance (Standards for Quality Control for Pharmaceuticals)/GVP Ordinance (Standards for Post-Marketing Safety Management for Pharmaceuticals and Medical Devices)/QMS Ordinance (Standards for Manufacturing Control and Quality Control for Medical Devices and In Vitro Diagnostic Reagents) in the pharmaceutical business.

Furthermore, the Denka Group is a member of the Japan Vaccine Industry Association, the Japan Association of Clinical Reagents, and the Japan Medical Device Industry Association, and is working together with these organizations to contribute to the improvement of health and welfare for all people.

Establishment of quality control systems and efforts to improve customer satisfaction

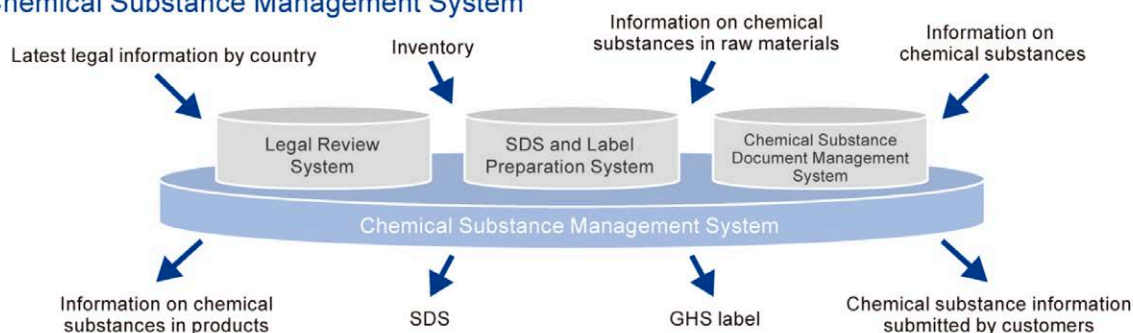
To provide reliable products and services, we are promoting the establishment of quality control systems.

By using systems such as the Complaint Management System, which integrates and manages customer complaint information to facilitate ongoing quality improvement, and the Chemical Substance Management System, which links information on chemical substances to product safety, we are raising our level of management and striving to further improve quality and ensure product safety.

Customer Complaint Management System



Chemical Substance Management System



Activities to Improve Customer Satisfaction

In order to reflect customer feedback in our quality assurance activities, the Electronics and Innovative Products Division conducts a customer satisfaction survey once a year.

We analyze customer feedback from the aspects of sales, technology, quality, and delivery, and implement strategic actions for quality improvement.

Through customer satisfaction surveys, we aim to gain further trust from our stakeholders.

Denka Group Social Contribution Policy

As a good corporate citizen, the Denka Group has established a basic policy for social contribution that indicates the roles and responsibilities it should fulfill to actively participate in society and contribute to its sound and sustainable development. Since its founding in 1915, the Denka Group has pursued chemical technology and *monozukuri* (the art of making things) in a quest to fulfill its eternal mission of contributing to human progress and social development. Over the course of a century, we have cultivated technologies for creating clean energy and saving energy, and through products, services, and solutions that contribute to social development and environmental protection, we will fulfill our social responsibilities. To this end, we will use the Denka Group's globally deployed bases as a foundation for social contribution activities, and with a focus on the three areas below, we will create environments that are easy for Group employees to participate in and raise awareness of active participation.

Denka Group Social Contribution Policy

Established on August 27, 2018

1. Promotion of education, academia, and culture

Companies must strive to foster the youth who will carry on the manufacturing of the future, actively support academic research of the next generation, and contribute to the promotion of culture.

2. Contributing to Local Communities and Protecting the Global Environment

Companies must respect the cultures and customs of countries and regions around the world and contribute to their development through community-based activities. Furthermore, by making effective use of limited resources and proactively working to protect the global environment, companies contribute to the realization of a sustainable society.

3. Promotion of health and welfare and sports

As a company that has made businesses related to medical care and living environments a pillar of its corporate management, we contribute to the promotion of health and welfare and the promotion of sports to improve people's QOL (quality of life).

In accordance with this Declaration, the Denka Group will work to strengthen mutually beneficial relationships with its business partners, thereby enhancing the overall supply chain value and creating open innovation across different scales, groups, and industries.

This Declaration also aligns with the Denka Group ESG Basic Policy in terms of "fair corporate activities," "information disclosure and constructive dialogue with stakeholders," and "dialogue and partnership with society," which is one of the materiality (most important management issues).

Moving forward, the Denka Group will use the SDGs as a compass to create a world in which everyone can live better by excelling at what we do best, and become an irreplaceable company for society.

Main social contribution activities

Support activities for recovery and reconstruction in the disaster areas of the Great East Japan Earthquake

In the disaster-stricken areas of the Great East Japan Earthquake, we are promoting recovery support projects through the headquarters for disaster recovery and infrastructure development support established within the Company. We provide products and solutions for the support of agricultural activities, the strengthening of expressway networks, and the construction of advanced research facilities.



Viaduct of Tohoku Shinkansen (Special admixture, Fukushima Prefecture)

Main Initiatives

- Restoration and reconstruction of roads, tunnels and buildings (via the provision of special cement additives) as well as farmland (via the provision of soil improvers, fertilizers and underground drainpipes)
- Recycling of sludge from municipal water supply and sewage treatment facilities as raw materials and fuel for use in cement production
- Dispatching a cumulative total of 900 volunteer employees, for a total of 82 rounds of relief activities carried out in disaster-hit communities

Accomplishments and Spillover Effects

- Contribution to the restoration, reconstruction and revitalization plans led by Japan's Reconstruction Agency via the provision of Denka Group products
- Creation of the *tsumugu* rice wine brand using rice produced in Minami Sanriku-cho through interaction with local farmers

Provision of rapid Ebola virus test kits to the Democratic Republic of the Congo

Denka Seiken provided a prototype of the Ebola virus rapid test kit (Quick Navi series) free of charge to the Democratic Republic of the Congo on May 25, 2018.

This test prototype kit was co-developed with Professor Yoshito Takada (Hokkaido University, Research Center for Zoonosis Control) and can be used in areas where medical facilities are not well equipped, as it does not require special equipment and can determine test results in about 15 minutes. We will continue to work on early diagnosis and prevention of infectious diseases.

Denka Big Swan Stadium Junior Soccer Festival

On August 19, 2018, the Denka Group held the 4th Denka Big Swan Junior Soccer Festival in collaboration with the Itoigawa City Board of Education, Itoigawa City Sports Association, and Itoigawa Soccer Association at the Denka Big Swan Stadium (Niigata Stadium), for which we hold the naming rights. Approximately 400 participants, including elementary school children and their parents belonging to junior soccer teams in Niigata Prefecture, took part in the event, which included friendly matches and soccer classes conducted by players of J2 Albirex Niigata. In the future, we will continue to contribute to further regional development and promotion of sports through the Denka Big Swan Stadium.



Opening ceremony

Dreams and Chemistry-21"Publishing chemistry experiment videos on the Children's Chemistry Channel (YouTube)"

On the YouTube "Children's Chemistry Channel" of the "Dream Chemistry-21" Committee, our chemistry experiment videos have been released.

The "Children's Chemistry Channel" was planned as a substitute for the "Summer Vacation Children's Chemistry Experiment Show," which has been held every summer at the National Museum of Nature and Science (Kitanomaru Park, Chiyoda-ku, Tokyo) since 2020 due to the COVID-19 pandemic. The channel aims to introduce children to the wonders, interesting aspects, and fun of chemistry, as well as its role in society, and features chemistry experiment videos from various chemical manufacturers and educational institutions.

Our experiment video, themed "The Mystery of Water You Can Hold! Let's Make a Gel!", demonstrates how to create a "gel," which is widely used in our daily lives, such as in jelly, tofu, konjac, contact lenses, air fresheners, and diapers, through a chemical reaction between sodium alginate and calcium chloride. Please take a look.

Dream Chemistry-21

<https://www.kagaku21.net/>

Children's chemistry experiment channel

<https://www.youtube.com/@user-wx8ys8xx9d>

The Wonder of Grasping Water! Let's Make Gel! (Published: May 12, 2023)

https://www.youtube.com/watch?v=_DpagQFyDe0

Donations for social contribution

Item	Scope	Unit	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024
Total amount	Consolidated	million yen	22.35	9.95	25.05	16.45
Donations including designated donation for support for the victims of the 2023 Noto Peninsula Earthquake	Consolidated	million yen	0.55	0.05	10.05	0.05
Donations to specified public interest promotion corporations and other donations	Consolidated	million yen	21.8	9.9	15	16.4

Main Evaluations from Outside

Inclusion in SRI (socially responsible investment) and ESG indices and ratings

The Denka Group has been recognized for its efforts toward a sustainable society based on its ESG Basic Policy and has received high evaluations from various ESG rating institutions around the world. (As of June 2025)

MSCI SELECTION INDEXES

MSCI SELECTION INDEXES is a comprehensive ESG index provided by MSCI, one of the world's leading index providers. This index is based on ESG research conducted by MSCI, which conducts ESG ratings for companies around the world and selects companies that are relatively highly rated within each industry. (As of June 2025)



MSCI Japan ESG Select Leaders Index

The MSCI Japan ESG Select Leaders Index is a comprehensive ESG index provided by MSCI, one of the world's leading index providers. This index is selected based on ESG ratings conducted by MSCI based on ESG research conducted by MSCI. This index has been selected as an ESG index by the Government Pension Investment Fund (GPIF), and we continue to confirm its inclusion. (As of June 2025)

2025 CONSTITUENT MSCI NIHONKABU
ESG SELECT LEADERS INDEX

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S&P/JPX Carbon Efficient Index

The S&P/JPX Carbon Efficient Index was jointly developed by Japan Exchange Group, Inc. and the US-based S&P Dow Jones Indices. It is based on the TOPIX, a leading stock index in the Japanese market, and is composed primarily of companies with high environmental information disclosure and carbon efficiency (carbon emissions per unit of sales). This index has also been selected as an ESG index by the Government Pension Investment Fund (GPIF), and has been continuously included since its launch in 2018 (June 2025).



SOMPO Sustainability Index

The SOMPO Sustainability Index is an active index created by SOMPO Asset Management based on ESG scores from the "Environmental Management Survey" and the "ESG Management Survey" ※ conducted by SOMPO Risk Management, combined with stock value assessments. The index consists of approximately 300 stocks with superior ESG evaluations. This product is currently being adopted by several institutional investors, including pension funds, and we are confirming ongoing adoption. (As of June 2025)



※ SOMPO Risk Management "ESG Survey and Assessment Methods"
<https://www.sompo-rc.co.jp/services/view/259>

Acquired CDP 2024 Climate Change B and Water Security A ratings

On February 7, 2025, the CDP 2024 scores were announced, and the Company received a "B" for "Climate Change" and an "A" for "Water Security."

CDP (headquartered in London) is an international non-profit organization that provides an environmental information disclosure system established in 2000 by a group of global institutional investors. CDP conducts surveys based on responses to questionnaires regarding "climate change," "water security (water resource protection)," and "forests (forest conservation)," and publishes the results of evaluations of the transparency of environmental information disclosure and management involvement of each company in the form of scores. More than 23,000 companies, representing two-thirds of the world's total market capitalization, and over 24,000 organizations worldwide, including more than 1,100 municipalities, disclose environmental information through CDP questionnaires.

Regarding "climate change," we have set more in-depth KPIs in Management Plan "Mission 2030" and are working to identify specific risks and opportunities. Regarding "water security," we will continue to disclose appropriate environmental information while enhancing water management, more precisely understanding the impact of our corporate activities on water resources, and working to improve efforts to minimize that impact.

[CDP Corporate Questionnaire 2024 \(3.73MB\) \(September 27, 2024\)](#)



"EcoVadis Sustainability Rating: "Commitment Badge""

EcoVadis (headquartered in France) is an international platform for evaluating the sustainability of supplier companies. It conducts evaluations based on themes in four areas: "Environment," "Labor and Human Rights," "Ethics," and "Sustainable Procurement." Denka's sustainability initiatives were recognized, and the Company was awarded a Commitment Badge. (As of March 2025)



External awards

Certification as a Health and Productivity Management Organization (White 500)

The Ministry of Economy, Trade and Industry and the Japan Health Council jointly commend corporations practicing excellent health and productivity management in collaboration with health insurers as "Health and Productivity Management Organization." Denka has been certified as one of the excellent companies in the "Health and Productivity Management Organization 2025" for two consecutive years and has been recognized as a "White 500" company.

➤ [Health and productivity management](#)



Certification of Kurumin

As a result of the establishment of a workplace environment that is easy to work in, companies that have formulated a general business action plan based on the Next Generation Act, have achieved the targets set forth in the plan, and meet certain criteria will be certified. Denka has been certified for five consecutive years since 2021.

➤ [Promotion of diversity, equity & inclusion](#)



Awarded the "Precast/Prestressed Concrete Institute Award (Paper Award)"

The following two members of the Infrastructure Solutions Research Department, Kenta Suihara (Group Leader) and Hirotohi Kodate (Assistant Plant Manager, Omi Plant), have received the "Prestressed Concrete Institute Award (Paper Award)".

[Regarding the receipt of the Precast Concrete Engineering Award (Paper Award)]

The Prestressed Concrete Engineering Award is presented to papers and other works that are recognized as having made a significant contribution to the advancement and development of prestressed concrete technology. This time, the paper "Expansion Distribution and Mechanical Properties of CPC Beam Using Expansive Concrete" was evaluated.

The society's website announcing the award:

<http://www.jpcci.or.jp/>

Received "The Yoshida Award of the Society of Civil Engineers" and "The Japan Concrete Institute Award (Meritorious Award)"

The following two awards were presented to Dr. Minoru Morioka, Department Manager of the Infrastructure Solutions Research Department: the "Yoshida Award (Paper Category)" from the Japan Society of Civil Engineers and the "Concrete Engineering Award (Meritorious Award)" from the Japan Concrete Institute.

[Regarding the Receipt of the Yoshida Award from the Japan Society of Civil Engineers]

The Yoshida Award was established to contribute to the advancement of concrete and reinforced concrete technologies, and is presented for outstanding achievements, papers, and construction work related to concrete and reinforced concrete. This time, the paper "Method for Evaluating CO₂ Fixation in Carbonated Cementitious Materials and Study on Changes in Physical Properties" was evaluated.

Website of the society announcing the award:

https://www.jsce.or.jp/prize/prize_list/6_yoshida.shtml

Paper: "Research on evaluation methods for CO₂ fixation amount and changes in physical properties in carbonated cement-based materials":

https://www.jstage.jst.go.jp/article/jscejmcs/77/2/77_37/_pdf/-char/ja

[Regarding the Receipt of the Japan Concrete Institute Award]

The Japan Concrete Institute awards the Japan Concrete Institute Award to papers and works recognized for having made a significant contribution to the advancement and development of concrete engineering and technology, as well as to its members. The Award for Meritorious Service is presented to regular members who have made significant contributions over many years to the development of the Institute's activities.

Website of the society announcing the award:

<https://www.jci-net.or.jp/j/jci/award/award-history.html>



Awarded the Best Presentation Award at the 2019 IEEE Conference on Electrical Insulation and Dielectric Phenomena (2019)

At the 2019 IEEE Annual Meeting held in September 2019 (Iwate University), Shuhei Aoyama of the Denka Innovation Center, Advanced Technology Research Institute, received the IEEE Excellent Presentation Award.

The Award recognizes young researchers and engineers aged 35 or younger who have made outstanding presentations of their theses.

The award-winning theme is the development of a rapid antigen diagnostic device using a thermal nanoimprint sheet, and the device developed in this study is expected to be applied as a new simple immunodiagnostic platform.

Website of the society magazine announcing the award:

https://www.jstage.jst.go.jp/article/ieejfms/140/6/140_NL6_1/_article/-char/ja



Awarded the Industrial Standardization Business Award and the Minister of Economy, Trade and Industry Award for achievements in international standardization activities (October 8, 2019)

On October 8, Masahiro Ibukiyama, Senior Technical Advisor (STA) of the New Business Development Department, received the Minister of Economy, Trade and Industry Award at the "Industrial Standardization Project Awards" hosted by the Ministry of Economy, Trade and Industry.

The Industrial Standardization Awards are presented by the Ministry of Economy, Trade and Industry every October during "Industrial Standardization Promotion Month" to individuals who have made notable achievements in industrial standardization such as the establishment of international standards and domestic standards and conformity assessment activities.

The Ibuki-yama STA was highly praised for its achievements as the Japanese representative committee member and Secretary General of ISO/TC206 (Fine Ceramics) and for its efforts to establish international standards for phosphors used in white LEDs, which contributed to the enhancement of Japan's status and strengthening of its competitiveness.

Ministry of Economy, Trade and Industry (Reiwa 1st Year Industrial Standardization Business Award Recipient)

<https://www.meti.go.jp/press/2019/10/20191007001/20191007001.html>



The UROKO Global Website Wins "awwwards. Site of the Day" (August 23, 2019)

The uruoi global website, operated by Denka Corporation (New York, USA), has been awarded the Site of the Day (STOD) by the global web design award "awwwards."

The "awwwards." is a prestigious web design award that attracts the attention of web creators around the world. Based on the evaluation criteria of "Design," "Usability," "Creativity," and "Content," judges and registered users vote daily to select the sites that are most outstanding in terms of design and functionality as the Site of the Day (SOTD).

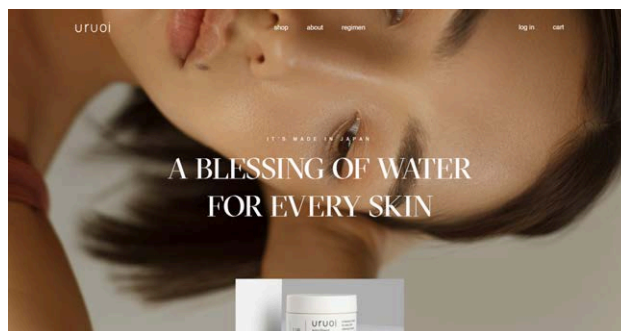
The uruoi global website, which won the SOTD this time, received high marks of 7.2 points or higher out of 10 in all four categories. This website was newly established by Denka Corporation to strengthen sales of uruoi in the United States.

The "awwwards." website announcing the awards:

<https://www.awwwards.com/sites/uruoi-japanese-skincare>

Uruoi global site:

<https://uruoiskincare.com> (recommended browsers: Google Chrome/Safari)



Reagent for sd LDL-C test wins ZAK Award at AACC (August 5, 2019, Anaheim, USA)

Denka Seiken Co., Ltd., a consolidated subsidiary of Denka Company Limited, is pleased to announce that the company's Reagent Academic Department Manager, Yasuki Ito, has been awarded the ZAK Award by the American Association for Clinical Chemistry (AACC) for the development of a reagent for automatic analyzers of "small, dense LDL-C"^{1, 2}

The ZAK Award was established in 1990 by the AACC in honor of Dr. Bennie Zak, who made significant contributions to the field of clinical testing in the United States. The award is presented every two years by the AACC's LVDD (Lipoproteins and Vascular Diseases Division) to individuals who have made notable contributions to clinical chemistry research in this field. The award ceremony was held on August 5, 2019, at the AACC Annual Scientific Meeting in Anaheim, USA. The recipient, Yasuki Ito, was presented with the award by Katsuyuki Nakajima, Chair of the LVDD, and then gave a commemorative lecture.

Denka Seiken has been selling the sd LDL-C measurement reagent in the United States as an in vitro diagnostic drug/IVD reagent since July 2018 (Note 3). We are accelerating the development of this product, which allows for simple, rapid, and low-cost assessment of the risk of heart disease, in Japan and China as well as in the United States, and will continue to contribute to the maintenance of health and prevention of disease.



August 5, 2019 Award ceremony at AACC LVDD seminar (Anaheim, USA)
(Left) Yasuki Itoh Denka Seiken Co., Ltd. Reagent Academic Department Manager
(Right) Nakajima Katsuyuki, LVDD Chairman, American Association for Clinical Chemistry

(1) sd LDL-C (small, dense LDL cholesterol) A marker for assessing the risk of cardiovascular disease

(Note 2) AACC website: Lipoproteins and Vascular Diseases Division Awards
<https://www.aacc.org/community/divisions/lipoproteins-and-vascular-diseases/awards>

(Note 3) Press Release (July 31, 2018): Start of sales in the United States of reagent for "sd LDL-C," a risk marker for heart disease
https://www.denka.co.jp/storage/news/pdf/560/20180731_sd_LDL-C.pdf

Awarded the 2019 Excellent Research Award from the Chemical and Micro-Nano Systems Society (May 27, 2019)

At the 39th Research Meeting (CHEMINAS39) of the Japan Society for Micro-Nano Systems held at Kanazawa University on May 27-28, Shuhei Aoyama of the Denka Innovation Center, Advanced Technology Research Institute, received the Excellent Research Award for the Poster Prize.

The award-winning theme is "Development of lateral flow immunoassay device using thermal imprint sheet," which proposes a novel immunodiagnostic platform using microfabrication technology. Details of this research will be published in the academic journal to be issued by this society at a later date.

Website of the society announcing the award:

<http://cheminas.chips.jp/commendation/presentation-award/research-group-commendation/>

A paper by one of our researchers was selected for the cover of the UK academic journal "Analyst" (March 7, 2019)

In March 2019, a paper written by our researcher, Shuhei Aoyama, was published in the academic journal "Analyst" of the Royal Society of Chemistry (RSC), and was selected for the cover page due to its high evaluation.

This paper proposes a novel immunodiagnostic platform using a polymer sheet processed by a nanoimprint method (a type of fine processing technology). The microcone structure fabricated on the sheet enables highly sensitive and rapid detection of the target antigen. Furthermore, by examining the types of polymers used and the shapes of the fine structures in detail, we achieved highly sensitive detection of blood proteins. The platform has higher homogeneity and transparency than existing immunodiagnostic kits, and is expected to be applied as a next-generation immunodiagnostic platform.

[Title of paper]

Thermally imprinted microcone structure-assisted lateral-flow immunoassay platforms for detecting disease marker proteins (Paper on the development of rapid immunoassay devices using thermal imprint sheets)

Shuhei Aoyama, Yuto Akiyama, Kenji Monden, Masumi Yamada and Minoru Seki*

Analyst, 2019, **144**, 1519–1526. *This paper is co-authored with Chiba University, National University Corporation.

[Link to this paper]

<http://xlink.rsc.org/?DOI=C8AN01903G>

[Link to cover]

<https://pubs.rsc.org/en/content/articlelanding/2019/an/c9an90022e/unauth#!divAbstract>



Acquisition status of external certification

As of August 2025

The Denka Group operates environmental and quality management systems to promote continuous improvement.

■ Acquisition status of ISO14001 (environment) certification

Site name	Registration No.
Omi Plant	19362328-2A
Omuta Plant	JP021970
Chiba Plant	JP023535
Shibukawa Plant	JP022052
Ofuna Plant	JP022976
Isesaki Plant	JP025228
Gosen Site	JP024903
Denka Innovation Center	JP026087
Denka Singapore Pte. Ltd.	10597162
Denka Singapore Merbau Plant	10442121
DENKA ADVA-TECH TOAS FACTORY	SG004431
DENKA CONSTRUCTION SOLUTIONS MALAYSIA	C734760
DENKA ADVANCED MATERIALS VIETNAM	4410416940004
Denka Advanced Materials (Suzhou)	CN041503
Denka Electronics Materials Dalian	CN050348
Hinode Chemical Industry ※1	KES2-0622
Company-wide coverage rate (%)	64%

※1 In accordance with ISO standards, we have acquired certification for the "Kyoto Environmental Management System (KES)" Step 2, and are working to make continuous improvements.

※2 Company-wide coverage rate = Number of ISO14001 certified sites ÷ Number of major production group companies × 100

■ Acquisition status of ISO9001 (quality) certification

Site name	Registration No.
Omi Plant	JP025718
Omuta Plant	JP023219
Chiba Plant	JP026048
Shibukawa Plant	JP023240
Ofuna Plant	JP024116
Isesaki Plant	JP022573
Denka Innovation Center	JP024569
Denka Singapore Pte. Ltd.	10216321
Denka Singapore Merbau Plant	14002
DENKA ADVA-TECH TOAS FACTORY	99-2-0984
DENKA ADVA-TECH SOUTH PLANT	2015-2-2293
DENKA CONSTRUCTION SOLUTIONS MALAYSIA	C662335
DENKA ADVANCED MATERIALS VIETNAM	4410018940004
Denka Advanced Materials (Suzhou)	CN041504
Denka Electronics Materials Dalian	CN050349
Denka Inorganic Materials (Tianjin)	N.CN23-22591A
Denka Performance Elastomer	10001143 QM15
Denka Polymer	JUSE-RA-1970
Denka Elastlution	JP021891
Kyushu Plastic Industry	JP022847
DENKA ASTEC KASAI PLANT	JA0107-24Q-1
Company-wide coverage rate (%)	84%

※1 For products subject to certification on each site, please contact us individually.

※2 Company-wide coverage rate = Number of sites with ISO9001 certification ÷ Number of major Group companies × 100

■ Acquisition status of ISO13485 (medical devices and in vitro diagnostic reagents) certification

Certification system	Site name	Registration No.
ISO13485	Gosen Site	Q5 055720 0003

※ For products eligible for certification, please contact us.

■ Acquisition status of IATF16949 (automotive industry quality management system) certification

Certification system	Site name	Registration No.
IATF16949	Omuta Plant	0451115
	Chiba Plant	0555513

※ For products eligible for certification, please contact us.

■ Status of acquisition of occupational safety and health management system certification

Certification system	Site name	Certification number
ISO45001	Chiba Plant	JP024552
OSHMS	Omi Plant	10-15-6
ISO45001	Denka Singapore Pte. Ltd.	10597161
ISO45001	DENKA ADVA-TECH TOAS FACTORY	SG004609
ISO45001	DENKA ADVANCED MATERIALS VIETNAM	C703177

■ Integration of ISO14001 and ISO45001 into a single management system

Certification system	Site name	Certification number
ISO14001&ISO45001	Denka Singapore Pte. Ltd.	10667089

■ Acquisition status of ISO28000 certification

Certification system	Site name	Certification number
ISO28000	Denka Singapore Pte. Ltd.	53602

■ Acquisition status of ISO50001 (Energy Management System) certification

Certification system	Site name	Certification number
ISO50001	Denka Singapore Pte. Ltd.	10474031

■ Status of ISCC-PLUS (Sustainability Carbon Certification) Certification

Certification system	Site name	Certification number
ISCC-PLUS	Denka Singapore Pte. Ltd.	ISCC-PLUS-Cer-DE100-13931123
	Denka Polymer Goi Factory	ISCC-PLUS-Cert-DE100-19445124
	Denka Polymer Sakura Plant	ISCC-PLUS-Cert-DE100-20226124
	Denka Polymer Katori Plant	ISCC-PLUS-Cert-DE100-20231124

GRI Index

General disclosure items

Theme	Disclosure items	Contents of Indicators	Corresponding section
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	2-2	Entities covered by organizational sustainability reporting	› Website/ Overseas Subsidiaries and Office
	2-3	Reporting period, reporting frequency, contact information	› DenkaReport2025 P1 Coverage
	2-4	Correction of information	-
	2-5	Independent assurance	› Greenhouse Gas Emission Verification Report
2. Activities and Workers	2-6	Activities, value chain, and other transactional relationships	› Denka's Business › Website/ Business Categories › Strengthening partnerships with the supply chain
	2-7	Employees	› Notice of Convocation of the 166th ordinary Gneral Meeting of Shareholders /Business Report _1(9)Employees(P44) › Sustainability Site/Society/ Human Resource Management Performance Data
	2-8	Workers other than employees	-
	2-9	Governance Structure and Composition	› Corporate Governance › Corporate Governance Report (June20,2025)
3. Governance	2-10	Appointment and election to the highest governance body	› Board of Directors › Denka Corporate Governance Guidelines: (EN version P3)
	2-11	Chair of the highest governance body	› Corporate Governance Report (June20,2025) I -1、 II -1
	2-12	Role of the highest governance body in overseeing impact management	› Denka Report 2025 P32,33 Materiality › Important Management Issues (Materiality) › Dialogue with Stakeholders
	2-13	Transfer of responsibility for impact management	› Corporate Governance Report (June20,2025) P5 /Supplementary Principle 3.1.3 Initiatives on sustainability › Progress management of ESG promotion system and non-financial KPIs, and reflection in officer remuneration
	2-14	Role of the highest governance body in sustainability reporting	› Corporate Governance › Denka Report 2025 P32,33 Materiality
	2-15	Conflict of interest	› Corporate Governance Report (June20,2025) P2 /Supplementary Principle 1.7 Related Party Transactions, P10/Outside Directors' Relationship with the Company
	2-16	Conveying of significant issues	› Risk Management › Whistleblowing system › Denka Report 2025 P2/Suspension of Chloroprene Rubber Manufacturing Facilities at U.S. Subsidiary DPE and Its Impact、 P87-89 Risk Management
	2-17	Collective knowledge of highest governance body	› Sustainability Site/Denka Group ESG Management Our Material Issues (Materiality)/Sustainability Committee

Theme	Disclosure items	Contents of Indicators	Corresponding section
	2-18	Assessment of performance of highest governance body	Sustainability Site/Denka Group ESG Management Our Material Issues (Materiality)/Sustainability Committee Assessment of Effectiveness of Board of Directors Denka Report 2025/P81 Evaluation of the Effectiveness of the Board of Directors
			Denka Report 2025/P80 Director Remuneration
			Denka Report 2025/P80 Director Remuneration
	2-19	Remuneration Policy	
	2-20	Determination of Remuneration	
4. Strategies, Policies, and Practices	2-21	Percentage of total annual remuneration	-
	2-22	Statement on Sustainable Development Strategies	Message from the President
	2-23	Policy Statement	The Denka Group ESG Basic Policy Denka Group Human Rights Policy Denka Group Sustainable Procurement Basic Policy and Guidelines Basic Policy on Compliance
	2-24	Implementation of Policy Statements	Denka Report 2025 P32,33 Materiality Addressing Human Rights Risks Strengthening partnerships with the supply chain Strengthening of group compliance systems using legal hazard maps
	2-25	Process for correcting negative impacts	Sustainability Site/ Compliance Hotline System
	2-26	Systems for seeking advice and raising concerns	Whistleblowing system Basic Policy on Compliance
	2-27	Compliance with laws and regulations	-
	2-28	Organizations with membership qualifications	Lime Nitrogen Industry Association, Carbide Industry Association, Japan Business Federation, Tokyo Chamber of Commerce and Industry, Japan Chemical Industry Association, Petrochemical Industry Association, Mitsui Global Research Institute, and others
5. Stakeholder Engagement	2-29	Approach to Stakeholder Engagement	Dialogue with Stakeholders
	2-30	Collective bargaining agreement	Securities Report: P11 Status of Labor Unions

Theme	Disclosure items	Contents of Indicators	Corresponding section
Disclosure items on material items	3-1	Determination Process for Material Items	Sustainability Site/Materiality review Process
	3-2	List of material items	Selection of important management issues (materiality) Denka Report 2025 P32,33 Materiality
			Selection of important management issues (materiality)

Economy

Theme	Disclosure items	Contents of Indicators	Corresponding section
201 Economic Performance	201-1	Direct economic value generated and distributed	› Denka corporate site/ IR Information
	201-2	Financial impact of climate change and other risks and opportunities	› Environmental accounting › Climate change risks and opportunities
	201-3	Burden of defined benefit pension plan, other retirement benefit systems	› Notice of Convocation of the 166th Ordinary General Meeting of Shareholders Other Matters Subject to the Electronic Provision P10 Method of accounting for retirement benefits
	201-4	Government grants	› Subsidies for environmental energy
202 Presence in the local economy	202-1	Percentage of standard starting salaries to local minimum wages (by gender)	-
	202-2	Percentage of senior management hired from local communities	-
203 Indirect Economic Impacts	203-1	Infrastructure investment and support services	› Main social contribution activities
	203-2	Significant indirect economic impacts	-
204 Procurement Practices	204-1	Percentage of spending on local suppliers	-
205 Preventing Corruption	205-1	Sites that conduct risk assessment for corruption	-
	205-2	Communication and training on anti-corruption policies and procedures	› Basic Policy on Compliance › Measures against corruption and anti-social forces
	205-3	Confirmed cases of corruption and implemented measures	-
206 Engaging in Anticompetitive Conduct	206-1	Legal actions due to anti-competitive conduct, antitrust, or monopolistic practices	-
207 Taxes	207-1	Approach to Taxation	-
	207-2	Tax governance, management, and risk management	-
	207-3	Stakeholder engagement and addressing concerns related to taxation	-
	207-4	Country-specific reports	› Securities Report: P8 Status of Affiliated Companies

Environment

Theme	Disclosure items	Contents of Indicators	Corresponding section
301 Raw materials	301-1	Weight or volume of raw materials used	-
	301-2	Recycled materials used	› Overview of Environmental Impacts
	301-3	Products and packaging materials that have been recycled	- › SDGs/List of socially and environmentally conscious products
302 Energy	302-1	Energy consumption within the organization	› Overview of Environmental Impacts › Promoting the Use of Clean Energy
	302-2	Energy consumption outside of organization	› Promoting the Use of Clean Energy
	302-3	Energy intensity	› 2024 Environmental Performance Data
	302-4	Reduction of energy consumption	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
			› Achievement of carbon neutrality
	302-5	Reducing the energy requirements of products and services	› 2024 Environmental Performance Data › SDGs/List of socially and environmentally conscious products
303 Water and Wastewater	303-1	Interaction with water as a shared resource	› Preservation of Water Resources
			› Environmental Performance Data by Office
			› Sustainability Site/environment/Preservation of Water Resources
	303-2	Management of impacts related to wastewater	› 2024 Environmental Performance Data
	303-3	Water intake	› Preservation of Water Resources
			› Sustainability Site/environment/Preservation of Water Resources
	303-4	Wastewater	› Overview of Environmental Impacts
			› 2024 Environmental Performance Data › Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
304 Biodiversity	304-1	Business sites owned, leased, or managed in protected areas or areas not protected but with high biodiversity value, or adjacent areas	› 2024 Environmental Performance Data
			› Sustainability Site/environment/Preservation of Water Resources
	304-2	Significant impacts of activities, products and services on biodiversity	› Sustainability Site/environment/Initiatives for Biodiversity Conservation
	304-3	Protection and restoration of habitats	› Sustainability Site/environment/Initiatives for Biodiversity Conservation
	304-4	Species on the IUCN Red List and the national endangered species list that inhabit regions affected by our business activities	-

Theme	Disclosure items	Contents of Indicators	Corresponding section
305 Emissions to air	305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
	305-2	Indirect greenhouse gas (GHG) emissions (Scope 2)	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
	305-3	Other indirect greenhouse gas (GHG) emissions (Scope 3)	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
			› Sustainability Site/environment/ Initiatives Aimed at Curbing GHG Emissions/Scope3
	305-4	Greenhouse gas (GHG) emissions intensity	› 2024 Environmental Performance Data
			› Environmental Performance Data by Office
			› Sustainability Site/environment/ Performance Data of Each Site
	305-5	Reducing greenhouse gas (GHG) emissions	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
306 Waste	305-6	Emissions of ozone-depleting substances (ODS)	› Initiatives Aimed at Curbing GHG Emissions and Reduction Targets for GHG Emissions
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	› 2023 Environmental Performance Data (NOx, SOx)
			› Environmental Performance Data by Office
			› Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
	306-1	Significant impact related to waste generation and disposal	› Efforts to Address the Plastic Problem
			› Overview of Environmental Impacts
	306-2	Management of significant impacts related to waste	› 2024 Environmental Performance Data
			› Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
307 Environmental Compliance	306-3	Waste generated	› Efforts to Address the Plastic Problem
			› 2024 Environmental Performance Data
	306-4	Waste not disposed	› Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
			› Overview of Environmental Impacts
	306-5	Disposed waste	› Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
			› 2024 Environmental Performance Data
			› Sustainability Site/Environment/ Fiscal 2024 Environmental Performance Data
	306-6		› Environmental Performance Data by Office
308 Assessment of suppliers' environmental performance	307-1	Violation of environmental laws and regulations	-
	308-1	New suppliers selected based on environmental standards	-
	308-2	Negative environmental impacts in the supply chain and the measures taken	-

Social

Theme	Disclosure items	Contents of Indicators	Corresponding section
401 Employment	401-1	New employee hires and employee turnover	› Labor data
			› Sustainability Site/Human Resource Management Performance Data
			› Recruitment Data
	401-2	Benefits provided to regular employees but not to non-regular employees	-
	401-3	Parental leave	› Labor data
			› Sustainability Site/Society Human Resource Management
402 Labor-Management Relations	402-1	Minimum notification period for changes in business	-
403 Occupational health and safety	403-1	Occupational health and safety management system	› Status of acquisition of occupational safety and health management system certification
	403-2	Identification of hazards, risk assessment, accident investigation	› Activities in FY2024 (Company-wide Targets and Key Implementation Items)
			› Health & Productivity Management and Occupational Health & Safety
	403-3	Occupational health services	› Activities in FY2024 (Company-wide Targets and Key Implementation Items)
			› Health & Productivity Management and Occupational Health & Safety
			› Health and Productivity Management
	403-4	Workers' participation, consultation, and communication on occupational health and safety	› Safety management System
			› Activities in FY2024 (Company-wide Targets and Key Implementation Items)
			› Health & Productivity Management and Occupational Health & Safety
	403-5	Worker training on occupational safety and health	› Activities in FY2024 (Company-wide Targets and Key Implementation Items)
			› Health & Productivity Management and Occupational Health & Safety
			-
	403-6	Promotion of worker health	› Ensuring transportation safety
			› Work style reform
			› Health and Productivity Management
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked due to business relationships	› Sustainability Site/Health & Productivity Management and Occupational Health & Safety
			› Basic Policy on Occupational Health, Safety, and Security
	403-8	Workers covered by occupational health and safety management systems	› Ensuring safety in transportation
			› Safety management System
	403-9	Occupational injury	› Acquisition status of external certification
			› Safety record
	403-10	Occupational illness and injury	› Safety record
			› Sustainability Site/Safety Performance
404 Training and Education	404-1	Average annual training hours per employee	-
	404-2	Employee skill improvement programs and transition support programs	› Labor data
			› Cultivation and utilization of specialty personnel
	404-3	Percentage of employees who have received regular reviews on performance and career development	› Sustainability Site/Utilization of Human Resources and Strengthening of Development Systems
405 Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	-
			› Promotion of diversity
			› Labor data
	405-2	Gender ratio of base salary and total remuneration	› List of Directors and Skill Matrix
			› Securities Report: P11 Difference in wages between male and female workers

Theme	Disclosure items	Contents of Indicators	Corresponding section
406 Non-discrimination	406-1	Remedial Measures Implemented for Cases of Discrimination	> Whistleblowing system
			> Sustainability Site/Compliance Hotline System
407 Freedom of Association and Right to Collective Bargaining	407-1	Establishments and suppliers where the freedom of association and the right to collective bargaining may be at risk	> Securities Report: P11 Status of Labor Unions
			> Denka Group Initiatives on Human Rights
408 Child labor	408-1	Companies and suppliers with significant risk of child labor	> Denka Group Initiatives on Human Rights
409 Forced Labor	409-1	Businesses and suppliers with significant risk of forced labor	> Denka Group Initiatives on Human Rights
410 Security Practices	410-1	Security personnel who have received training on human rights policies and procedures	-
411 Indigenous Peoples' Rights	411-1	Examples of infringement of indigenous peoples' rights	-
412 Human Rights Assessment	412-1	Business sites subject to human rights reviews and impact assessments	> Denka Group Initiatives on Human Rights
	412-2	Employee training on human rights policies and procedures	> Addressing Human Rights Risks
	412-3	Important investment agreements and contracts that include human rights clauses or have undergone human rights screening	-
413 Local communities	413-1	Sites that implemented engagement with local communities, impact assessment, and development programs	> Dialogue with Stakeholders
	413-2	Companies that have a significant negative impact on local communities	-
414 Assessment of suppliers' social dimensions	414-1	New suppliers selected based on social criteria	-
	414-2	Negative social impacts in the supply chain and measures taken	-
415 Public Policy	415-1	Political contributions	-
416 Customer health and safety	416-1	Assessment of health and safety impacts for product and service categories	> Quality assurance management
	416-2	Examples of violations regarding health and safety impacts of products and services	-
417 Marketing and Labelling	417-1	Requirements for information and labeling of products and services	> Quality assurance management
	417-2	Examples of violations regarding product and service information and labeling	> News Release(23.May.2023) / Improprieties Related to Third-Party Certification of Resin Products of Denka and an Equity-Method Affiliate, etc., and Establishment of an External Investigation Committee Consisting of Outside Experts
		Examples of violations regarding marketing and communication	N/A
418 Customer Privacy	418-1	Specific complaints regarding infringement of customer privacy and loss of customer data	N/A
419 Compliance on social and economic aspects	419-1	Violation of laws and regulations in the social and economic fields	N/A



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