

Sustainability Book

2023

Denka

Possibility
of
chemistry



Denka

Possibility
of
chemistry

Denka Sustainability Book 2023

■ Covered Period

This report covers FY2022 (April 1, 2022 to March 31, 2023) in principle, and also includes additional information from 2023. Also, this report presents data on numerical targets for and performance statistics from the past several fiscal years.

Date of publication: December, 2023

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Policies

Initiatives

Denka Group ESG Basic Policy

The Denka Group recognizes the issues related with sustainability, meaning the quality of being able to continue over a medium- to long-term period, to be important management matters affecting its corporate viability. The Denka Group will take a proactive and spontaneous approach to tackling the sustainability-related issues which range from consideration for global environmental problems such as climate change, respect for human rights, consideration for employee health and working environment, appropriate treatment of workers, maintenance of fair and appropriate transactions with business partners and to crisis management at times of natural disaster and other emergencies.

Moreover, in terms of increasing medium- to long-term corporate value, for the realization of a sustainable society and the solution of challenges shared by all humanity, the Denka Group will work in tandem with our business partners and supply chain to tackle the Sustainable Development Goals (SDGs) advocated by the United Nations and will strive to be a company capable of contributing to society by offering our innovation and solution as a chemical manufacturer.

Under the Denka Group Vision, consisting of Denka's Core Value, Purpose, and Mission, which forms the basis of all our employees' activities and represents the future of Denka, we have set out the Denka Group ESG Basic Policy governing our handling of Environmental, Social and Governance (ESG) issues in the course of the Group's business activities, and will strive to adhere to each of the underlying principles of this policy and increase corporate value by developing an effective corporate governance system underpinned by strong moral compass.

Note: The letters "E," "S" and "G" in the left column of the following table refer to Environmental, Social and Governance issues, respectively.

Tackling sustainability issues

Consideration for climate change and other global environmental issues, respect for human rights, consideration for employee health and the working environment, fair and appropriate wages, fair and appropriate transactions with business partners, risk management for natural disasters, etc.

Social Issues



Denka Group Basic ESG Policy

- E**
- Promote climate change countermeasures
 - Reduce the environmental impact and preserve/protect biodiversity
 - Sustainable economic growth and solving social issues
 - Respect for human rights
 - Develop inclusive workplace environments with the utmost priority on safety
- S**
- Participate in, contribute to, and build trust toward creating better local communities
 - Build relationships of trust with customers
 - Promote diversity and inclusion, nurture human resource development, and reform working styles
- G**
- Fair corporate activities
 - Information disclosure and constructive dialogue with stakeholders
 - Risk management
 - Protect and manage our tangible and intangible assets
 - Ensure the role of top management and the implementation of this policy

Initiatives

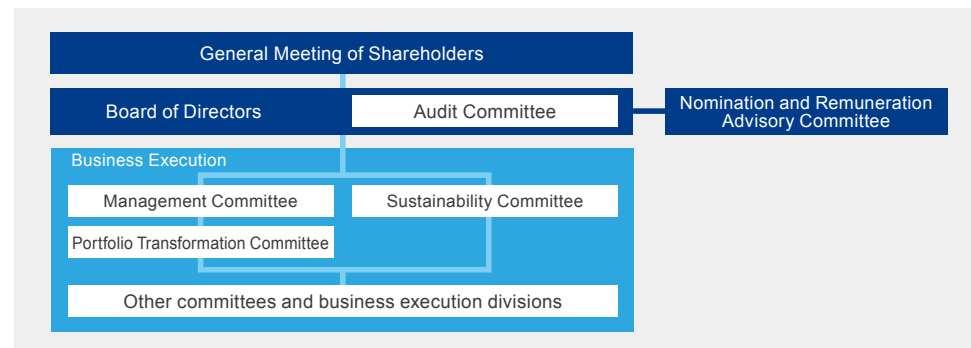


ESG Management Framework of the Denka Group

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 the implementation of 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.

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



- Management divisions : Report on the status of activities and non-financial KPI progress twice a year
- Business divisions : Report on responses to risks and opportunities related to sustainability issues yearly in March

Our Material Issues (Materiality)

1. Materiality (14 items)

- We have classified materiality issues into two categories, “responsibility and contributing to a sustainable society”, in which we contribute to society through our business activities, and “strengthening our business foundation”, which is a requirement for corporate survival and sustainable growth.
- Responsibility and contribution to a sustainable society (5 items) consists of items that the Denka Group should address in order to resolve social issues through its business operations, such as global warming countermeasures, healthcare, and sustainable cities and lifestyles.
- Strengthening our business foundation (9 items) is based on the Denka Group ESG Basic Policy, and issues related to human resources, a source of sustainable growth, and initiatives to fulfill social responsibilities through supply chain interaction.

Materiality (14 items)

Responsibility and contribution to a sustainable society (5 items)

- Sustainable growth through the creation of new businesses
- Increasing healthy life expectancy and correcting health disparity
- Sustainable cities and fulfilling daily lives
- Achievement of carbon neutrality
- Environmental conservation and minimization of environmental footprint

Strengthening our business foundation (9 items)

- Strengthening of HR development systems
- Promotion of Diversity, Equity & Inclusion
- Increasing healthy life expectancy and correcting health disparity
- Process reforms
- Respect for human rights
- Place the utmost priority on safety
- Supply chain management
- Improving product safety and quality
- Enhancement of corporate governance

2. Incorporating into management (Setting management strategies and KPIs)

- Materiality is an essential element to address the risks and opportunities connected to issues of sustainability in our management base from a medium- to long-term perspective and aiming to realize our vision. It should form the cornerstone of our business activities.
- Under our new management plan, "Mission 2030," the entire Denka Group will work to resolve global issues, such as climate change and contribute to the realization of a sustainable society by establishing management strategies that are linked to materiality.
- The new materiality was reflected in each of the individual policies and measures in our management strategy, and KPIs were formulated with an awareness of visualizing progress management. We aim to achieve sustainable growth by resolving ESG issues and improving earnings, and accelerating this virtuous cycle.

📄 ESG information site Our material issues (materiality)
https://denka_sustainability.disclosure.site/en/themes/729

Denka Report 2023 [Our material issues \(materiality\)](#)


Human Rights Initiatives

The Denka Group Human Rights Policy

The Denka Group Human Rights Policy was approved by the Board of Directors and enacted on September 11, 2023.

This human rights policy applies to all Group executives and employees, and its business partners and suppliers are urged to support and respect it. Furthermore, we have sent a Self-Assessment Questionnaire (SAQ) to major suppliers regarding various risks, including human rights risks, asking for their response.

We will continue to promote awareness of and disseminate the Denka Group Human Rights Policy to all Group employees and work systematically together with expert third parties on human rights due diligence and redress mechanisms.

 ESG information site Denka Group Human Rights Initiatives
https://denka_sustainability.disclosure.site/en/themes/779

Response to Human Rights Risks

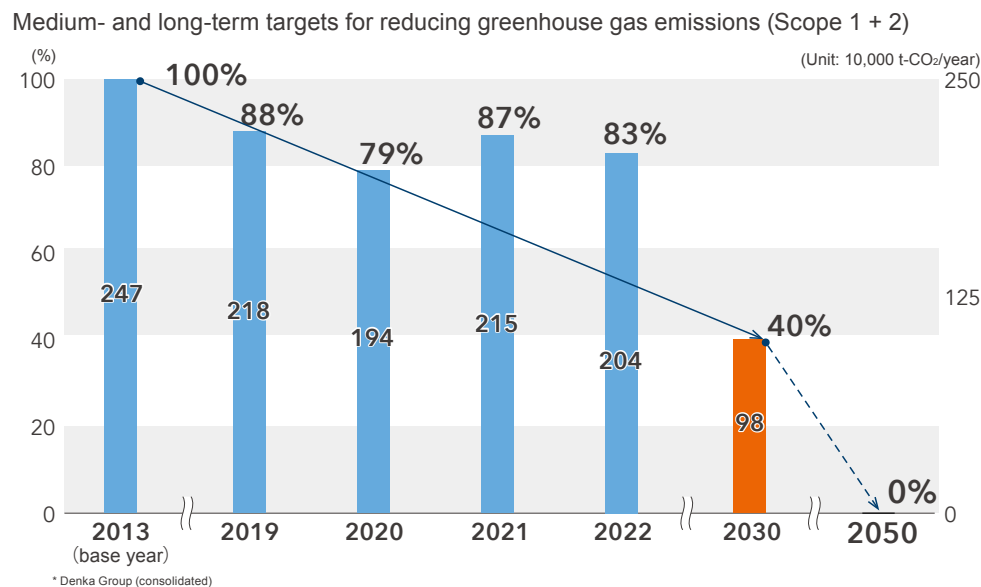
We have been encouraging the “maintenance of favorable human relationships” in line with the Denka Group Ethics Policy. Accordingly, all Denka Group officers and employees are called upon to respect individual human rights. The “Standards of Business Conduct” states the importance for officers and employees of the Denka Group to maintain high ethical standards and act as good corporate citizens in all the countries and regions in which the Denka Group operates, while recognizing that laws, customs, traditions, and culture vary by country and region. It further states the importance of ensuring that all officers and employees of the Denka Group are treated fairly and without discrimination in all aspects of their employment, including job assignments, promotions, transfers, and training opportunities, in accordance with the abilities and aptitudes required for the job and applicable laws and regulations, regardless of ethnicity, race, gender, religion, nationality, age, physical disability, or gender identity. Moreover, the Standards of Business Conduct provide clear and detailed guidelines regarding what practices must be observed and what constitutes prohibited action with the aim of living up to our commitment to complying with labor laws, ensuring equal employment and career opportunities without discrimination, and preventing workplace harassment. In particular, these standards feature case studies of actual workplace incidents involving power harassment and sexual harassment to be dealt with in a way conformant to guidelines issued by the Ministry of Health, Labour and Welfare. Thus, these standards include elaborative provisions designed to prevent harassment incidents from occurring within the Denka Group. Denka also signed the United Nations Global Compact in June 2023. Denka supports the 10 principles established by the initiative, respects other international human rights standards, and contributes to human rights issues through its business activities.

 ESG information site Response to Human Rights Violation Risk
https://denka_sustainability.disclosure.site/en/themes/746

Denka Report 2023 [Human Rights Initiatives](#)

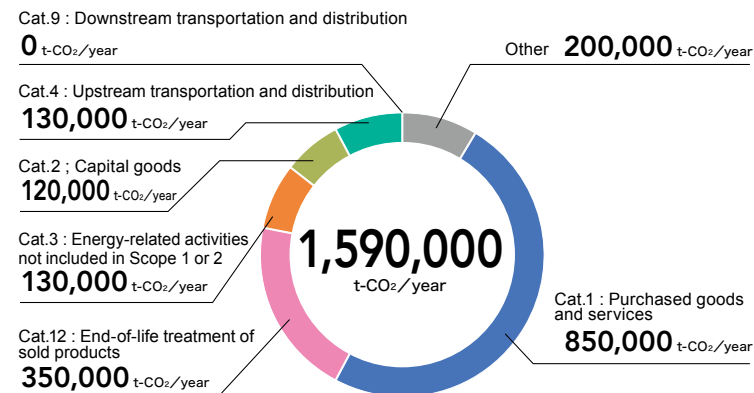
Achievement of Carbon Neutrality

We aim to be carbon neutral by 2050 with respect to our own CO₂ emissions (Scope 1 and 2), which can be directly reduced through our own activities. We aim to reduce the environmental impact of raw materials and processes, and to increase energy conservation and our use of renewable energy. Because there are limits to what individual companies can do to help contribute to carbon neutrality, in addition to our own efforts, we are actively seeking collaboration with surrounding companies and local governments to improve social infrastructure.



In fiscal 2022, emissions across the entire product value chain (Scope 3) decreased in energy categories not included in Scope 1 and 2, mainly the transportation, delivery and disposal of our products, although production increased due to the recovery in economic activity that continued from the previous year. We will continue to work with upstream and downstream suppliers to reduce emissions through the development and provision of products and technologies that will further contribute to the environment that draw on our unique technologies.

Current State of Greenhouse Gas Emissions from the Value Chain (Scope 3, Fiscal 2022)



Current status of greenhouse gas emissions across the value chain (Scope 3, Fiscal 2022)

Category	Details	FY2022	Percentage
Cate1	Purchased Goods and Services	846,856	53.2
Cate2	Capital goods	116,783	7.3
Cate3	Energy-related activities not included in SCOPE 1 and 2	128,465	8.1
Cate4	Upstream transportation and distribution	131,555	8.3
Cate5	Waste generated through business activities	18,398	1.2
Cate6	Business trips	546	0.0
Cate7	Employee commuting	1,692	0.1
Cate8	Upstream lease assets	-	0.0
Cate9	Downstream transportation and distribution	0	0.0
Cate10	Processing of sold products	-	0.0
Cate11	Use of sold products	-	0.0
Cate12	End-of-life treatment of sold products	347,466	21.8
Cate13	Downstream lease assets	-	0.0
Cate14	Franchises	-	0.0
Cate15	Investments	-	0.0
Total		1,591,761	100.0

Energy consumption intensity (FY2018 base)

FY2020	FY2021		FY2022	
Results	Results	Targets	Results	Targets
1.00	1.01	0.95	1.02	0.97

CO₂ emissions intensity (from energy sources)(Unit: t-CO₂/t)

FY2020	FY2021		FY2022	
Results	Results	Targets	Results	Targets
1.10	1.11	1.04	1.13	1.08

CO₂ emissions intensity (from energy sources: FY2018 base)

FY2020	FY2021		FY2022	
Results	Results	Targets	Results	Targets
0.96	0.97	0.92	1.00	0.95

Renewable Energy

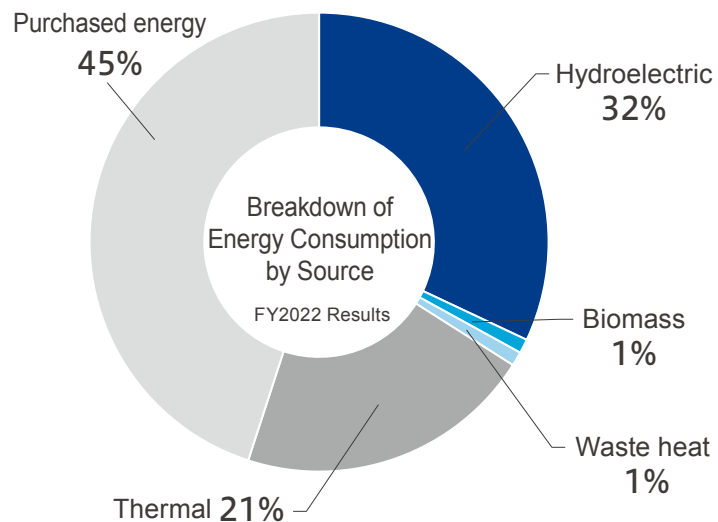
For more than 100 years, Denka has been promoting the use of renewable energy. Specifically, we have engaged in technological pursuits on two fronts, namely (1) leveraging hydroelectric power generation and other technologies to create renewable energy while (2) fully taking advantage of this energy in chemical manufacturing and utilizing it as a valuable energy source. Toward the realization of a low-carbon society, we are increasing our focus on renewable energy-related initiatives, one of our areas of strength.

Future Outlook for Our Renewable Energy Generation Capacity

	FY2005	FY2022	FY2023 (Target)
Hydroelectric	111	140	141
Solar, etc.	3	7	13
Total	114	147	154

* The above figures include 50% of the power output from power plants run by Kurobegawa Electric Power Company (a joint venture co-owned by Denka and Hokuriku Electric Power Company).

Breakdown of Energy Consumption by Source (FY2022 Results)

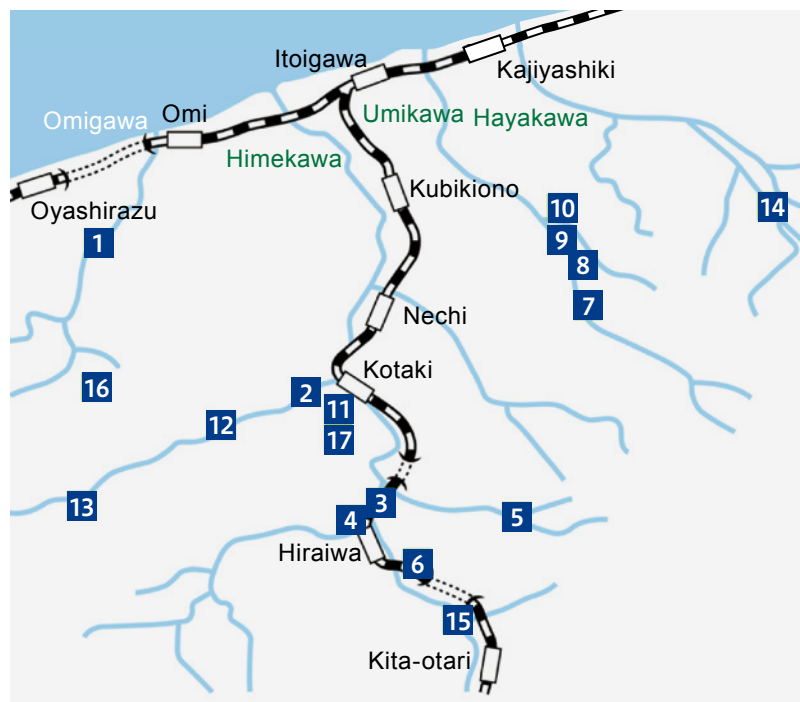


Denka Solar Power Shibukawa

ESG information site https://denka_sustainability.disclosure.site/en/themes/713
 Denka Report 2023 [Environmental](#)

Hydroelectric Power Plants (map) and their Maximum Outputs

Hydroelectric Power Plants (map)



Total maximum output of Denka's in-house power generation (as of August 2022)

Facility	Map		Maximum Output (kW)	The amount Denka is entitled to (kW)
Hydroelectric	1	Omigawa	3,300	3,300
	2	Kotakigawa	5,200	5,200
	3	Oami	28,400	28,400
	4	Otokorogawa	9,800	9,800
	5	Yokokawa No.1	10,000	10,000
	6	Yokokawa No.2	16,000	16,000
	7	Umikawa No.1	3,800	3,800
	8	Umikawa No.2	4,700	4,700
	9	Umikawa No.3	2,600	2,600
	10	Umikawa No.4	990	990 (FIT)
	11	Himekawa No.6	26,000	13,000 (Kurobegawa Electric Power Co.)
	12	Takigami	15,000	7,500 (Kurobegawa Electric Power Co.)
	13	Nagatoga	5,000	2,500 (Kurobegawa Electric Power Co.)
	14	Sasakura No.2	10,200	5,100 (Kurobegawa Electric Power Co.)
	15	Kita-otari	10,700	5,350 (Kurobegawa Electric Power Co.)
	16	New Omigawa	8,100	8,100 (FIT)
	17	New Himekawa No.6	27,900	13,950 (Kurobegawa Electric Power Co.)
Total Maximum Output			187,690	140,290
Total In-house consumption (exc;uding output for FIT)			—	117,250
Solar	Total Maximum Output			
		Shibukawa	1,990	1,990 (FIT)
	Isesaki	1,000	1,000 (FIT)	
			2,990	2,990
Thermal (LNG)		Omi	14,000	14,000
Thermal (waste heat and biomass boiler)		Omi Cement	11,100	11,100
Thermal (Gas Turbines and Cogeneration)		Omi (Tomi)	34,685	34,685
		Chiba	16,620	16,620
Thermal (Diesel)		Shibukawa	1,000	1,000
Total Maximum Output			77,405	77,405
Total Maximum Output (including output for FIT)				220,685
Total maximum output for in-house consumption				194,655

Government Subsidies Related to the Environment and Energy

Government Subsidies Related to the Environment and Energy

We proactively utilize subsidy programs to develop technologies that lead to ecological and energy-saving solutions.

Making use of the subsidy program for the rationalization of business operators' energy use by Japan's Ministry of Economy, Trade and Industry (METI), we are actively investing in energy saving and CO₂ reduction.

Over the course of the last five fiscal years (fiscal 2016 through 2020), Denka has been granted subsidies for ten projects—including projects for the demonstration of advanced technologies—and delivering results in accordance with their respective goals.

Energy Saving Initiatives

Utilizing the Ministry of Economy, Trade and Industry's "Energy Usage Rationalization Business Support Subsidy", we have achieved the expected effects by introducing an electrolysis plant, high-performance lime furnace, and gas turbine power generation at the Omi Plant, and a high-efficiency boiler at the Shibukawa Plant. The gas turbine power generation at the Chiba Plant started operating in 2022.

Using subsidies from the Ministry of Economy, Trade and Industry and the Ministry of the Environment, we promoted energy conservation by switching to LED lighting at the Omi Plant and Chiba Plant.

Environmental Load Reduction

Proposed and adopted as a consortium together with Kajima Corporation and Takenaka Corporation for the NEDO Green Innovation Fund project "Concrete manufacturing technology development project using CO₂".

Based on the technology cultivated in the carbonation admixture "LEAF" in this project, we will develop materials using unused resources such as industrial waste that have not yet been effectively utilized, clarify the mechanism of CO₂ fixation, We mainly develop quality control and fixed quantity evaluation methods.

Through this project, we aim to realize carbon-negative concrete and spread it in earnest both in Japan and overseas.

Similarly, the NEDO Stable Supply Support Fund project will promote research and development of new processes for battery materials that do not emit CO₂ from raw materials.

The Ministry of the Environment Project to Promote the Introduction of Advanced Resource Recycling Facilities has begun commercializing the chemical recycling of polystyrene resin and is scheduled to begin operation in the second half of fiscal 2023.

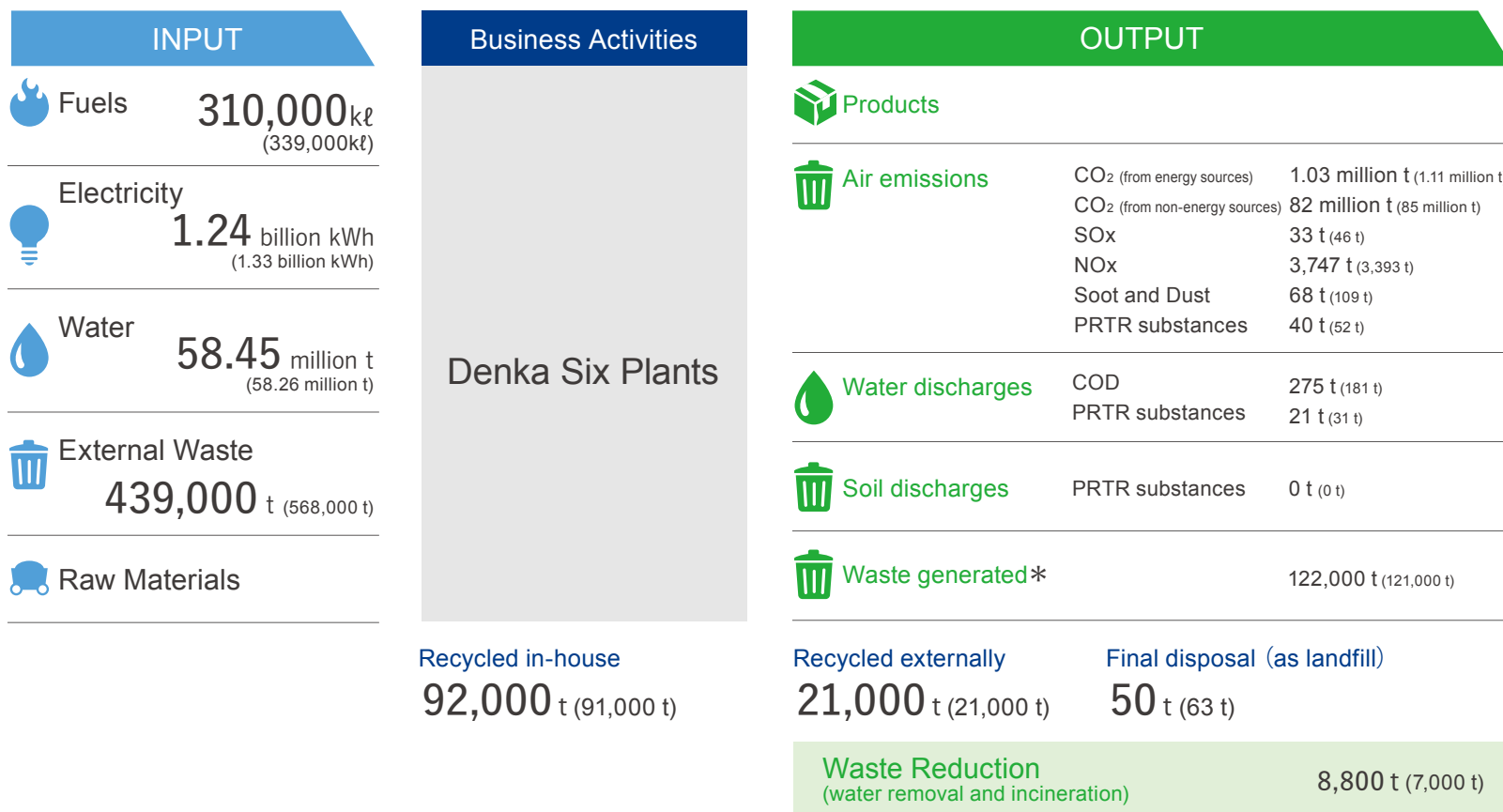
List of Subsidized Projects

	Category	Project	Site	Subsidy title, relevant authority		Fiscal year
1	Energy Saving	Introduction of energy-saving equipment for electrolysis plants and thermal power facilities, and process improvement for carbide plants	Omi Plant	METI	Subsidy program for the rationalization of business operators' energy use, etc.	FY2015 through FY2018
2	Energy Saving	Gas turbine power generation, cement grinder improvement, water pump optimization	Omi Plant	METI	Subsidy program for the rationalization of business operators' energy use, etc.	FY2018 through FY2020
3	Energy Saving	Introduction of high performance boiler	Shibukawa Plant	METI	Subsidy program for the rationalization of business operators' energy use, etc.	FY2018
4	Energy Saving	LED lighting	Omi Plant	METI	Subsidy program to support project costs of facility investments contributing to the reduction of electricity demand	FY2019
5	Energy Saving	Energy-saving business by renewing high-efficiency and large-sized gas turbines	Chiba Plant	METI	Subsidy program for the rationalization of business operators' energy use, etc.	FY2020 through FY2022
6	Environment & Energy Saving	LED lighting	Chiba Plant	MOE	Subsidy program for the rationalization of business operators' energy use, etc.	FY2019
7	Environment	Project for Development of Concrete and Other Manufacturing Technologies Using CO ₂	Omi Plant	METI	NEDO Green Innovation Fund Project	FY2022 through FY2026
8	Environment	Project for the Introduction of Advanced CO ₂ -saving Plastic Recycling Facilities	Toyo Styrene Co.,Ltd	MOE	Project to Promote the Introduction of Advanced Equipment for Recycling Resources to Build a Decarbonized Society	FY2021 through FY2023
9	Environment	Project to Ensure Supply Based on the Economic Security Promotion Act	Sustainability Promotion Department	METI	NEDO Green Innovation Fund Project	FY2023 through FY2026

Environmental Conservation and Minimization of Environmental Impact

Overview of Environmental Impacts (totals for all production sites in fiscal 2022; fiscal 2021 figures are provided in parentheses for comparison)

Graph of inputs and outputs



ESG information site Overview of Environmental Impacts https://denka_sustainability.disclosure.site/en/themes/651
Denka Report 2023 [Environmental](#)

Water Resources

Preservation of Water Resources

Fiscal Year	Unit	2020	2021	2022
		Results	Results	Results
Total water withdrawal	Megaliter	56,369	58,257	58,451
fresh surface water	Megaliter	29,052	32,889	32,700
groundwater	Megaliter	24,856	24,832	25,204
water supply (third party water sources)	Megaliter	461	536	547
Water withdrawal from water-stressed areas*	Megaliter	0	0	0

* In FY2021 and FY2022 we use Aqueduct 3.0

Water Used

Denka (non-consolidated basis)

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Water Used	km ³	59,424	56,852	54,369	58,257	58,451	57,874
		7 bases		8 bases			

Domestic and Overseas Affiliates

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Water Used	km ³	2,778	2,568	56,067	50,464	47,166	50,393
		15 bases	16 bases	17 bases			

Group's Total

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Water Used	km ³	62,202	59,420	110,436	108,721	105,617	108,267
		22 bases	23 bases	25 bases			

Denka receives an A- rating in "Climate Change" and a B rating in "Water Security" from CDP 2022

Denka announces that it was awarded an A- rating in Climate Change, and a B rating in Water Security from the CDP 2022 scores released on December 13th, 2022.

CDP, an international non-profit organization headquartered in London, was founded in 2000 as a collaboration of institutional investors around the world, and provides an environmental information disclosure system. It conducts surveys based on responses to questionnaires regarding its climate change, water security and forest categories, and it announces the results of its assessments of the transparency of environmental information disclosure and management's participation in these disclosures on a company-by-company basis. The CDP enhances environmental information disclosure through their platform to over 130,000 companies around the world.

For "Climate Change", Denka will establish a further detailed KPI in its management plan, "Mission2030", and will plan a further pursuit of specific risks and opportunities for the company. For "Water Security", Denka will continuously engage on the disclosure of adequate environmental information, by attempting to make improvements such as developing Denka's water management to higher levels, gauging the impact on water resources caused by our corporate activities with more precision, and contributing to minimizing the effects caused by these corporate activities.

Biodiversity

Our Support of the Taskforce on Nature-Related Financial Disclosures (TNFD)

Along with measures to combat climate change, coexistence with the natural environment is becoming increasingly important to establish a sustainable society, and the creation of a framework for international information disclosure is in full swing.

The Denka Group has set forth "Reduction of environmental burden and the preservation of biodiversity" in our ESG Basic Policy. Based on this policy, we have commenced measures in accordance with the beta guidelines issued by the TNFD(*), a biodiversity information disclosure framework, with the aim of understanding the environmental impact of our business activities and maintaining and improving them.

* TNFD: Taskforce on Nature-related Financial Disclosures

The official guidelines for biodiversity-related disclosure are scheduled to be released in the fall of 2023.

Initiatives to conserve biodiversity

We expect that it will take some time to collect, organize, review, and make decisions on natural environmental information. Using the LEAP approach* recommended in the TNFD guidelines, Denka began taking action in September 2022 with a view to finding contact points between our business activities and biodiversity and identifying priority issues.

More specifically, after conducting a surveys of the natural environment surrounding seven business sites in Japan using public data and literature, we have begun extracting and assessing points of contact with nature, focusing first on our Omi Plant (Itoigawa, Niigata), which has 17 hydroelectric power plants in the nearby mountains and has the greatest contact with the natural environment. Based on these surveys, we will analyze the risks and opportunities that face us in relation to the natural environment and take concrete measures to conserve biodiversity. In the near future, we will gradually expand the scope of our activities to other business sites and continue the cycle of the above activities with the aim of maintaining and improving the natural environment from a long-term perspective.

 ESG information site Preservation of Water Resources
https://denka_sustainability.disclosure.site/en/themes/655

ESG information site Fiscal 2022 Environmental Performance Data
https://denka_sustainability.disclosure.site/en/themes/649

ESG information site Efforts to Conserve Biodiversity
https://denka_sustainability.disclosure.site/en/themes/718

* Details are provided in the Denka Report 2023 (P.56) "Our Support of the Taskforce on Nature-Related Financial Disclosures (TNFD)."

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Environmental Performance Data

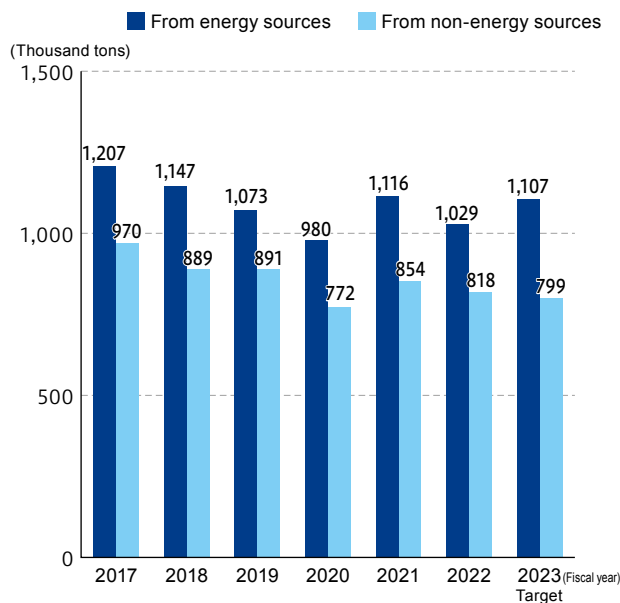
CO₂ emissions

In FY2022, production at our main plants, the Omuta Plant and the Chiba Plant, was reduced, resulting in a significant reduction in CO₂ emissions.

In FY2023, we will continue to focus on reducing emissions through energy saving initiatives at each of our manufacturing plants and the efficient operation of our power plants.

Trends in CO₂ emissions

Fiscal Year	Unit	Result	Result	Result	Result	Result	Result	Target
		2017	2018	2019	2020	2021	2022	2023
From energy sources	Thousand tons	1,207	1,147	1,073	980	1,116	1,029	1,107
From non-energy sources	Thousand tons	970	889	891	772	854	818	799



Trends in “Production Volume and Energy Consumption Intensity” and “CO₂ emissions intensity (from energy resources)”

In FY2022, production at the Omuta and Chiba Plants was severely reduced, resulting in a decline in company-wide production, and the impact of the suspension of hydroelectric power plant construction and other factors led to a deterioration in energy consumption intensity compared to the previous fiscal year.

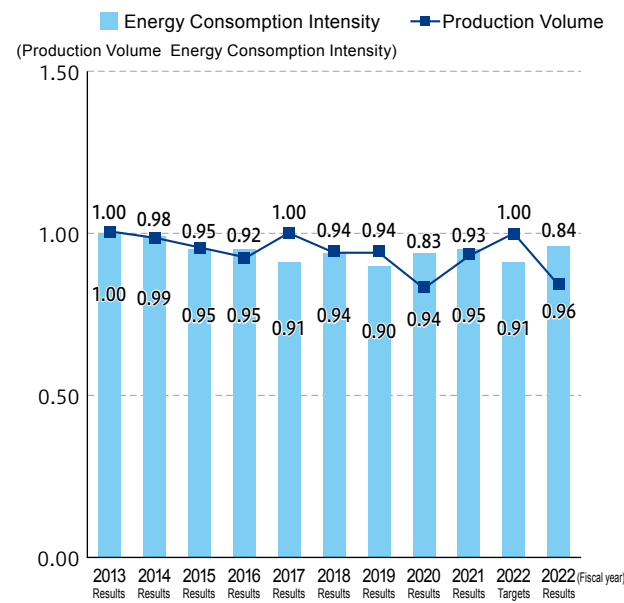
In FY2023, following the revision of the Energy Conservation Act, we will focus on further energy conservation efforts while continuing to conserve energy at each of our manufacturing plants and operate our power plants at high efficiency in order to make the transition to energy management including non-fossil energy.

Production Volume and Energy Consumption Intensity

(Standard: FY2013)

Fiscal Year	Result	Result	Result	Result	Result	Result	Result	Result	Result	Target	Result
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022
Production Volume	1.00	0.98	0.95	0.92	1.00	0.94	0.94	0.83	0.93	1.00	0.84
Energy Consumption Intensity	1.00	0.99	0.95	0.95	0.91	0.94	0.90	0.94	0.95	0.91	0.96

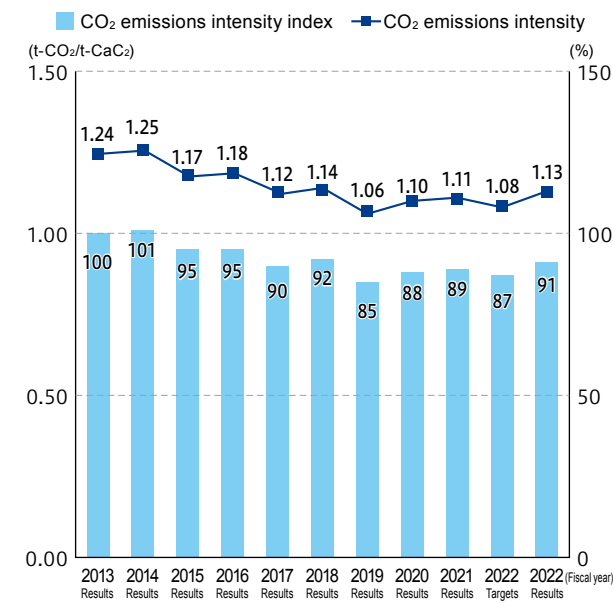
* FY2013 has been set to 1 as a benchmark



CO₂ Emissions Intensity (from energy sources)

(Standard: FY2013)

Fiscal Year	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Target	Result
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022
CO ₂ emissions intensity	t-CO ₂ /t-CaC ₂	1.24	1.25	1.17	1.18	1.12	1.14	1.06	1.10	1.11	1.08	1.13
CO ₂ emissions intensity index	%	100	101	95	95	90	92	85	88	89	87	91



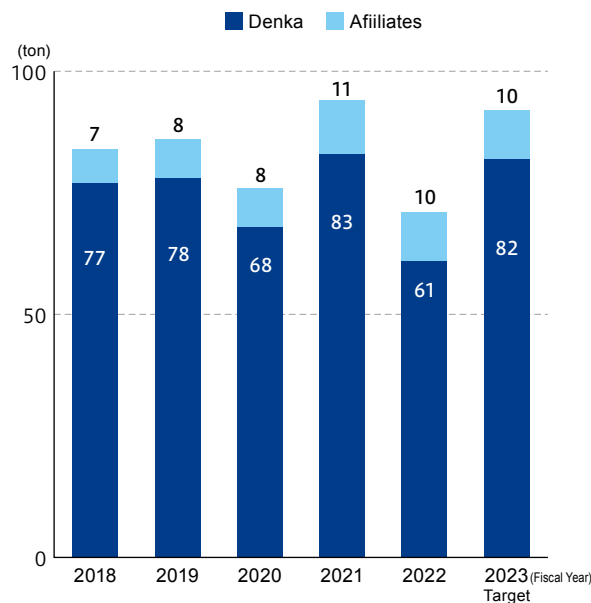
Environmental Performance Data

PRTR Substances Emissions

In FY2023, we expect a slight increase in emissions due to an increase in the number of target substances, among other factors, but we will continue to make systematic efforts to reduce emissions, focusing on reductions in atmospheric emissions.

PRTR Substances

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Denka	Ton	77	78	68	83	61	82
Affiliates	Ton	7	8	8	11	10	10



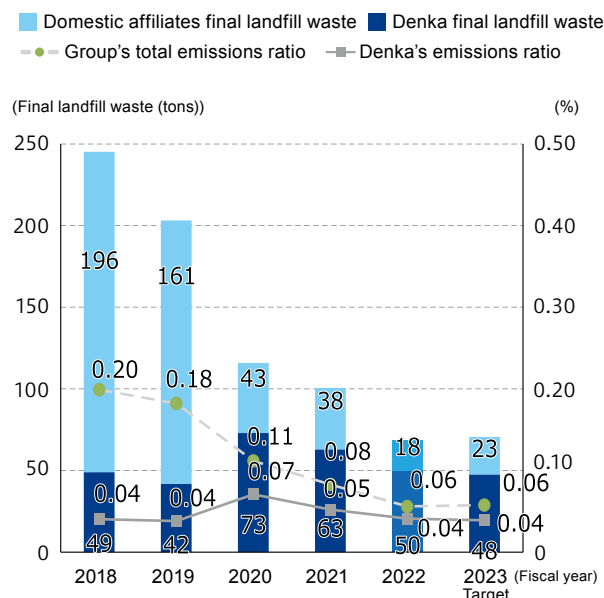
Final waste disposal volume and emission rate of domestic group companies

In FY2020, the Gosen Site (formerly Denka Seiken) was added to our list of stand-alone facilities and as a result of processing waste from the site in the cement kiln at the Omi Plant, the emission rate for the entire Group has remained low.

Final Disposal Amount and Waste Emission Ratio

Fiscal Year		Unit	Result	Result	Result	Result	Result	Target
			2018	2019	2020	2021	2022	2023
Denka	Amount of waste generated	Tons	121,433	110,265	103,104	120,927	121,687	122,046
Denka	Amount of final landfill waste	Tons	49	42	73	63	50	48
Denka	Emissions ratio	%	0.04	0.04	0.07	0.05	0.04	0.04
Domestic Affiliates	Amount of waste generated	Tons	1,854	1,362	538	549	384	436
Domestic Affiliates	Amount of final landfill waste	Tons	196	161	43	38	18	23
Group's Total	Amount of waste generated	Tons	123,287	111,627	103,642	121,476	122,071	122,482
Group's Total	Amount of final landfill waste	Tons	245	203	116	101	68	71
Group's Total	Emissions ratio	%	0.20	0.18	0.11	0.08	0.06	0.06

*Emissions ratio (%) = amount of final landfill waste / amount of waste generated x 100
 *In Denka's definition, "zero emissions" means an emission ratio lower than 1%.

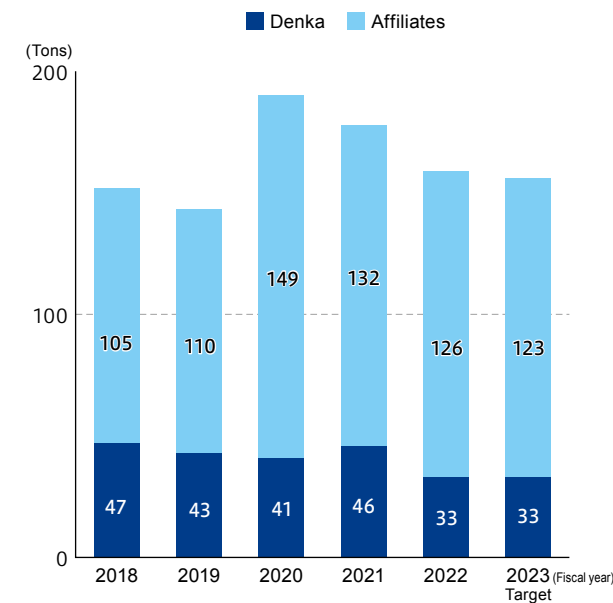


SOx Emissions

In FY2022, emissions remained generally the same as in previous years.

SOx Emissions

Fiscal year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Denka	Ton	47	43	41	46	33	33
Affiliates	Ton	105	110	149	132	126	123



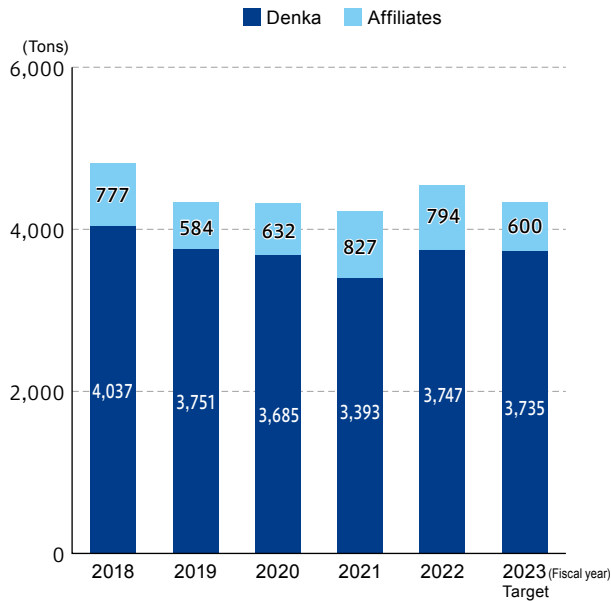
Environmental Performance Data

NOx emissions

In FY2022, emissions increased due to the increase in operating hours of our cement kilns. In FY2023, we will continue efforts to reduce emissions by further optimizing operations and other measures.

NOx emissions

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Denka	Tons	4,037	3,751	3,685	3,393	3,747	3,735
Affiliates	Tons	777	584	632	827	794	600

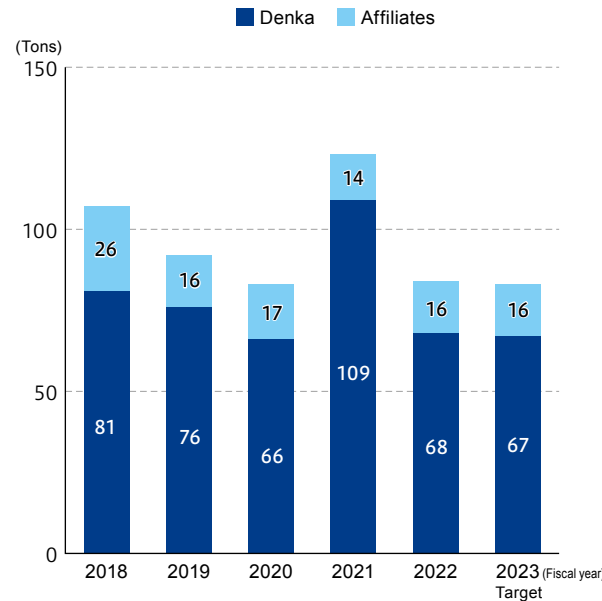


Soot and Dust Emissions

In FY2021, the coke dryer's filter cloth performance temporarily declined. However, following replacement of the filter cloth, emissions were brought back to the same level as in previous years and were maintained.

Soot and dust emissions

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Denka	Tons	81	76	66	109	68	67
Affiliates	Tons	26	16	17	14	16	16

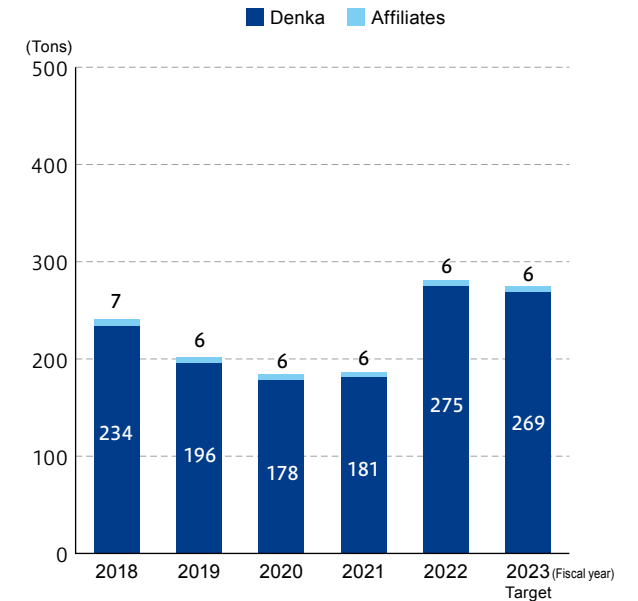


COD (BOD)

In FY2022, operation rates increased and COD trended upward. Although the operation rate is expected to increase further, we will strive to maintain the status quo by optimizing operations.

COD (BOD)

Fiscal Year	Unit	Result	Result	Result	Result	Result	Target
		2018	2019	2020	2021	2022	2023
Denka	Tons	234	196	178	181	275	269
Affiliates	Tons	7	6	6	6	6	6



Environmental Performance Data

Breakdown of emissions and transfers in fiscal 2022

The following table shows PRTR substances emitted and transferred exceeding one ton.

PRTR Substances	No.	Emissions				Amount Transferred (to the outside)
		Air	Water	Soil	Landfill	
n-butyl acrylate	7	0	0	0	0	1
Acrylonitrile	9	0	0	0	0	5
Acetaldehyde	12	0	4	0	0	0
Aniline	18	0	0	0	0	1
Ethyl benzene	53	3	0	0	0	24
Ferric chloride	71	0	0	0	0	61
N,N-Dimethylformamide	232	0	0	0	0	20
Styrene	240	16	0	0	0	72
Water soluble copper salt	272	0	3	0	0	0
Toluene	300	13	0	0	0	34
Carbon disulfide	312	1	0	0	0	0
Hydrogen fluoride and its water-soluble salt	374	1	1	0	0	27
n-Hexane	392	0	0	0	0	1
Boron and its compounds	405	0	10	0	0	7
maleic anhydride	414	0	0	0	0	2
Methyl methacrylate	420	4	0	0	0	8
Total (tons/year)		38	18	0	0	264
Dioxin (mg-TEQ/year)	243	200	22	0	0	0

Environmental Performance Data

Scope of Calculation for Fiscal 2022 Results

Environmental Performance Data	Omi Plant Omuta Plant Chiba Plant Shibukawa Plant Ofuna Plant Ilesaki Plant Gosen Site *1	Denka Innovation Center	Non-manufacturing sectors (Head Office, branches, etc.)	Domestic Affiliates (6)	Overseas Business Bases (11)
				Denka Polymer Denka Elastlution Hinode Kagaku Kogyo Denka Azumin Kyusyu Plastic Denka Astec *2	Denka Singapore, Merbau Denka Singapore, Seraya Denka Advantech, Tuas Denka Advantech, South Denka Advanced Materials Suzhou Denka Chemicals Development Suzhou Denka Inorganic Materials Tianjin Denka Electronics Materials Dalian Denka Advanced Materials Vietnam Denka Construction Solutions Malaysia Denka Performance Elastomer
Overview on Environmental Impacts	○	○	○	—	—
Environmental Accounting	○	○	—	—	—
Production Volume and Energy Consumption Intensity	○	○	○	—	—
CO ₂ Emissions Intensity (from energy sources)	○	○	○	—	—
CO ₂ Emissions (from energy and non-energy sources)	○	○	○	○	○
PRTR Substances Emissions	○ Note: Excluding emissions from Toyo Styrene and Taiyo Vinyl Corporation operating on the Chiba Plant's premises	○	—	○	—
Final Disposal Amount and Waste Emission Ratio	○ Note: Excluding emissions from Toyo Styrene and Taiyo Vinyl Corporation operating on the Chiba Plant's premises	○	—	○	—
SOx (sulfur oxide) emissions	○	○	—	○	○
NOx (nitrous oxide) emissions	○	○	—	○	○
Soot and dust emissions	○	○	—	○	○
COD (BOD) emissions	○	○	—	○	○
Water used	○	○	—	○	○
Environment performance data Ratio of main emissions and usage	○	○	—	○	○

*1 Including emissions from affiliates operating on the premises of seven domestic Denka plants: Denal Silane Co., Ltd., and Denak Co., Ltd. at Omi Plant, ; Toyo Styrene Co., Ltd., and Taiyo Vinyl Corp. at Chiba Plant

*2 For the results from fiscal 2020 onward, emissions from Nakagawa Techno Industrial Co., Ltd. are included (change of name to Denka Astec Co., Ltd. in April 2021)

The performance data of other Group companies will be added to the total number of sites after investigating the status of their calculations.

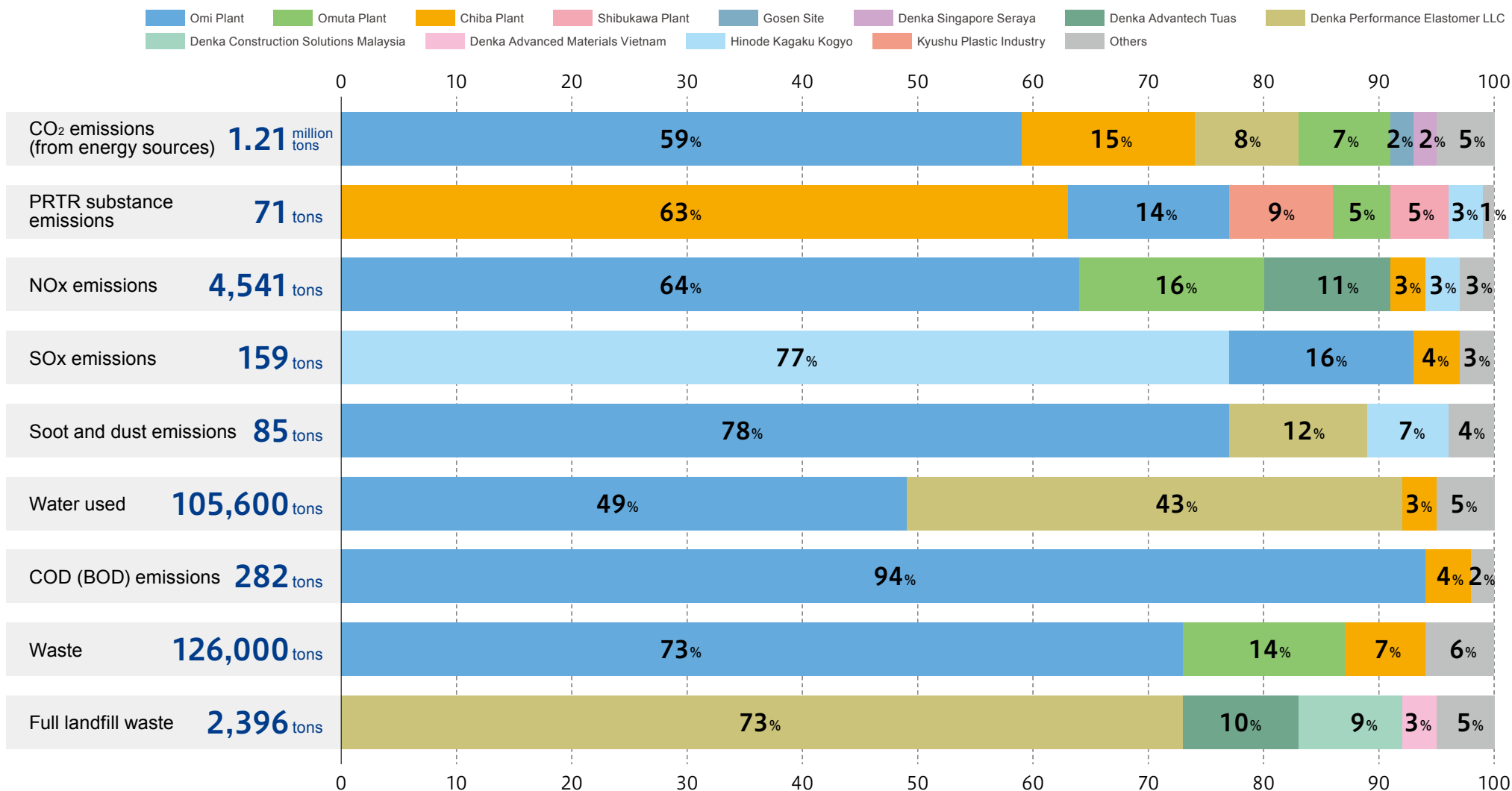


ESG information site Fiscal 2022 Environmental Performance Data https://denka_sustainability.disclosure.site/en/themes/649

Performance Data of Each Site

Fiscal 2022 Emissions of major substances and percentage of water usage

Environmental Performance Data (Results of Fiscal 2022) Percentage of major emissions and usage



ESG information site Performance data of each site https://denka_sustainability.disclosure.site/en/themes/650

Performance Data of Each Site

Omi Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	77	71	60	72	71	74
(CO ₂ emissions, fiscal 2013 base)		0.92	0.85	0.72	0.85	0.85	0.88
PRTR substance emissions	tons	10	9	7	14	10	10
NO _x emissions	tons	3,148	2,851	2,860	2,462	2,905	2,815
SO _x emissions	tons	40	38	35	37	26	25
Soot and dust emissions	tons	78	73	64	107	66	64
Water used	km ³	52,834	50,139	47,465	51,063	51,919	50,828
COD (BOD) emissions	tons	216	181	166	166	264	256
Waste	tons	90,498	84,631	70,599	88,679	92,094	92,011
Final landfill waste	tons	0	0	0	0	0	0

Chiba Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	22	23	22	24	18	22
(CO ₂ emissions, fiscal 2013 base)		0.66	0.71	0.67	0.72	0.55	0.66
PRTR substance emissions	tons	57	60	52	60	44	64
NO _x emissions	tons	135	154	156	162	127	160
SO _x emissions	tons	4	4	5	7	6	7
Soot and dust emissions	tons	2	2	2	1	1	2
Water used	km ³	3,622	3,661	3,615	3,742	3,174	3,680
COD (BOD) emissions	tons	15	13	10	14	10	11
Waste	tons	10,410	10,503	10,582	11,909	9,310	9,079
Final landfill waste	tons	23	14	7	4	2	2

Omuta Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	12	9	10	10	8	9
(CO ₂ emissions, fiscal 2013 base)		0.86	0.65	0.74	0.73	0.60	0.65
PRTR substance emissions	tons	4	5	4	4	3	3
NO _x emissions	tons	742	738	659	758	709	754
SO _x emissions	tons	1	1	1	0	0	0
Soot and dust emissions	tons	2	1	1	1	1	1
Water used	km ³	1,249	1,334	1,320	1,448	1,364	1,360
COD (BOD) emissions	tons	1	1	1	1	1	1
Waste	tons	18,869	13,693	19,012	17,587	17,703	18,342
Final landfill waste	tons	8	11	13	47	26	24

Shibukawa Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.9	0.9	0.8	1.0	0.8	0.9
(CO ₂ emissions, fiscal 2013 base)		1.26	1.28	1.16	1.45	1.17	1.35
PRTR substance emissions	tons	5	4	5	5	3	4
NO _x emissions	tons	10	8	9	10	6	6
SO _x emissions	tons	3	1	1	1	1	1
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	1,275	1,298	1,302	1,302	1,305	1,305
COD (BOD) emissions	tons	2	2	2	2	1	1
Waste	tons	721	576	676	686	559	503
Final landfill waste	tons	0	0	33	0	0	0

Performance Data of Each Site

Ofuna Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.8	0.7	0.6	0.8	0.6	0.9
(CO ₂ emissions, fiscal 2013 base)		1.02	0.94	0.87	1.01	0.78	1.20
PRTR substance emissions	tons	1	1	1	1	0	1
NOx emissions	tons	1	1	1	1	0	1
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	49	52	39	36	36	36
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	363	373	343	263	192	251
Final landfill waste	tons	1	3	1	1	1	1

Iesaki Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	1.8	1.6	1.5	1.9	1.4	1.8
(CO ₂ emissions, fiscal 2013 base)		1.06	0.95	0.85	1.10	0.79	1.03
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	388	363	408	400	380	400
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	485	381	690	632	276	350
Final landfill waste	tons	0	0	0	0	0	0

Gosen Site

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	1.7	1.8	2.3	2.3	2.3	2.2
(CO ₂ emissions, fiscal 2013 base)		1.12	1.15	1.44	1.44	1.48	1.37
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	1	0	1	1	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	321	312	214	260	266	258
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	1,030	923	1,118	1,102	1,488	1,444
Final landfill waste	tons	158	121	18	10	20	20

Innovation Center

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.2	0.1	0.1	0.2	0.2	0.2
—		—	—	—	—	—	—
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	7	6	7	6	7	7
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	87	109	84	70	66	66
Final landfill waste	tons	17	14	0	0	1	1

Performance Data of Each Site

Denka Singapore Merbau Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.4	0.4	0.4	0.3	0.4	0.4
NO _x emissions	tons	0.5	0.5	0.5	0.5	0.5	0.5
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	65	57	59	62	56	55
COD (BOD) emissions	tons	0.1	0.1	0.1	0.1	0.1	0.1
Waste	tons	453	299	194	130	279	265
Final landfill waste	tons	11	0	0	0	0	0

Denka Singapore Seraya Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	4.2	3.5	3.7	3.5	3.0	3.5
NO _x emissions	tons	4.6	4.6	4.7	4.7	3.9	4.4
SO _x emissions	tons	0.9	0.9	0.9	0.9	0.7	0.8
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	214	193	188	149	115	153
COD (BOD) emissions	tons	3.5	2.9	2.8	2.7	2.4	2.2
Waste	tons	1,220	1,180	1,563	1,027	749	1,280
Final landfill waste	tons	19	8	36	27	17	31

Denka Advantech Tuas Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	1.7	1.4	1.4	1.4	1.7	1.4
NO _x emissions	tons	513.1	342.6	386.4	586.8	516.7	344.8
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	78	67	62	102	88	75
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	228	158	219	281	261	222
Final landfill waste	tons	211	140	200	263	243	206

Denka Advantech South Plant

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.3	0.2	0.1	0.3	0.2	0.3
NO _x emissions	tons	1.7	1.4	0.7	1.6	0.8	1.5
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0.1	0.1	0.0	0.1	0.0	0.1
Water used	km ³	15	7	5	8	6	7
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	253	205	154	189	139	274
Final landfill waste	tons	21	17	10	20	17	34

Denka Advanced Materials Vietnam

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.3	0.3	0.2	0.4	0.4	0.4
NO _x emissions	tons	0	0	0	0	0	0
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	23	31	18	21	25	26
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	135	180	115	261	276	300
Final landfill waste	tons	23	43	38	85	76	80

Denka Construction Solutions Malaysia

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	—	0.03	0.02	0.02	0.02	0.03
NO _x emissions	tons	—	0	0	0	0	0
SO _x emissions	tons	—	0	0	0	0	0
Soot and dust emissions	tons	—	0	0	0	0	0
Water used	km ³	—	6.9	3.4	3.8	4.0	6.1
COD (BOD) emissions	tons	—	0	0	0	0	0
Waste	tons	—	422	255	214	215	323
Final landfill waste	tons	—	422	255	211	210	315

Denka Performance Elastomer LLC

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	—	—	9.5	7.6	9.3	10.2
NO _x emissions	tons	—	—	84	90	104	100
SO _x emissions	tons	—	—	1	1	1	1
Soot and dust emissions	tons	—	—	9	9	10	10
Water used	km ³	—	—	53,621	47,892	44,909	48,000
COD (BOD) emissions	tons	—	—	0	0	0	0
Waste	tons	—	—	1,099	1,216	1,826	1,500
Final landfill waste	tons	—	—	1,079	1,180	1,758	1,235

ESG information site Performance Data of Each Site https://denka_sustainability.disclosure.site/en/themes/650

Performance Data of Each Site

Denka Advanced Materials (Suzhou)

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.1	0.1	0.1	0.1	0.1	0.1
NO _x emissions	tons	0	0	0	0	0	0
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	2.0	1.5	1.7	1.5	1.3	1.4
COD (BOD) emissions	tons	0.1	0.2	0.1	0.0	0.1	0.1
Waste	tons	0.6	0.5	0.5	0.5	0.4	0.4
Final landfill waste	tons	0.09	0.07	0.03	0.02	0.02	0.01

Denka Inorganic Materials (Tianjin)

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.01	0.00	0.00	0.01	0.01	0.01
NO _x emissions	tons	0.1	0	0	0	0	0
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	1.1	1.0	1.0	0.7	0.7	1.0
COD (BOD) emissions	tons	0	0	0.1	0.1	0.2	0.2
Waste	tons	18.0	4.0	0.6	0.6	0.5	7.5
Final landfill waste	tons	0	0	0	0	0	0

Denka Chemicals Development Suzhou

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.03	0.02	0.02	0.02	0.01	0.01
NO _x emissions	tons	0	0	0	0	0	0
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	0.6	0.7	0.4	0.5	0.4	0.4
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	8	1	16	19	20	12
Final landfill waste	tons	0	0	2.3	0	6.9	7.0

Denka Electronics Materials Dalian

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.07	0.06	0.07	0.08	0.09	0.13
NO _x emissions	tons	0	0	0	0	0	0
SO _x emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	0.3	0.3	0.3	0.2	0.2	0.2
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	2.1	4.3	6.6	8.0	5.8	4.5
Final landfill waste	tons	0.1	0.1	0.2	0.2	0.2	0.1

Performance Data of Each Site

Hinode Kagaku Kogyo

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	2.0	1.9	1.9	1.8	1.8	1.7
PRTR substance emissions	tons	2	2	2	4	3	3
NOx emissions	tons	136	120	135	119	139	120
SOx emissions	tons	104	109	147	129	123	120
Soot and dust emissions	tons	12	7	7	5	6	6
Water used	km ³	1,206	1,030	1,233	1,360	1,101	1,200
COD (BOD) emissions	tons	2	2	2	2	1	1
Waste	tons	121	42	56	36	36	36
Final landfill waste	tons	4	3	4	3	3	3

Denka Azumin

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.6	0.6	0.5	0.5	0.5	0.5
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	22	23	20	24	29	29
SOx emissions	tons	1	1	1	1	1	1
Soot and dust emissions	tons	4	0	2	0	0	0
Water used	km ³	602	602	603	602	602	602
COD (BOD) emissions	tons	2	1	1	1	2	2
Waste	tons	113	78	80	66	47	75
Final landfill waste	tons	3.3	0.4	0.2	0.3	0.2	0.2

Denka Polymer

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	1.1	1.0	0.8	1.0	0.8	1.0
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	29	27	28	30	32	32
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	184	184	261	293	172	195
Final landfill waste	tons	0	0	0	0	0	0

Kyusyu Plastic Industry

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.2	0.2	0.2	0.2	0.2	0.2
PRTR substance emissions	tons	5	5	6	7	7	7
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	149	160	171	159	151	160
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	78	77	76	71	68	70
Final landfill waste	tons	18	25	29	16	11	15

Denka Elastlution

Fiscal Year	Unit	Results	Results	Results	Results	Results	Targets
		2018	2019	2020	2021	2022	2023
CO ₂ emissions (from energy sources)	tons (×10,000)	0.1	0.1	0.05	0.06	0.06	0.06
PRTR substance emissions	tons	0	0	0	0	0	0
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	74	72	73	73	74	74
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	57	58	61	66	57	56
Final landfill waste	tons	12	12	5	0	0	0

Denka Astec

Fiscal Year	Unit	中川テクノ			Denka Astec		
		Results	Results	Results	Results	Results	Targets
		2019	2020	2021	2022	2023	
CO ₂ emissions (from energy sources)	tons (×10,000)	0.007	0.006	0.005	0.005	0.005	0.005
PRTR substance emissions	tons	0.1	0.1	0.1	0.1	0.1	0.1
NOx emissions	tons	0	0	0	0	0	0
SOx emissions	tons	0	0	0	0	0	0
Soot and dust emissions	tons	0	0	0	0	0	0
Water used	km ³	0.5	0.4	0.3	0.3	0.3	0.3
COD (BOD) emissions	tons	0	0	0	0	0	0
Waste	tons	4.3	4.5	17.5	4.3	4.3	4.3
Final landfill waste	tons	4.3	4.3	17.5	4.3	4.3	4.3

Environmental Management (Acquisition Status by Certification) (As of the end of January, 2023)

The Denka Group operates environmental and quality management systems to proceed with continuous improvements.

Status of ISO14001 (Environmental Management System) certification acquisition

Site name	Register Number
Omi Plant	4569325-2A
Omuta Plant	JP021970
Chiba Plant	JP023535
Shibukawa Plant	JP022052
Ofuna Plant	JP022976
Isesaki Plant	4608659
Gosen Site	4604419
Denka Inovation Center	JP022417
Denka Singapore Merbau Plant	0052469
Denka Advantech Tuas Plant	2003-0194
Denka Construction Solutions Malaysia	C536648
Denka Advanced Materials Vietnam	4410416940004
Denka Advanced Materials (Suzhou)	CN041503
Denka Electronics Materials Dalian	CN036860
Hinode Kagaku Kogyo *1	KES2-0622

*1 We have acquired Kyoto Environmental Standard (KES) Step 2 certification according to ISO standards and are working on continuous improvements.

Status of ISO9001 (Quality Management System) certification acquisition

Site name	Register Number
Omi Plant	4267377
Omuta Plant	JP023219
Chiba Plant	JP022393
Shibukawa Plant	JP023240
Ofuna Plant	4550693
Isesaki Plant	JP022573
Denka Singapore Seraya Plant	10216321
Denka Singapore Merbau Plant	00014002
Denka Advantech Tuas Plant	99-2-0984
Denka Advantech South Plant	2015-2-2293
Denka Construction Solutions Malaysia	10000448229-MSC-JAS-ANZ-MYS
Denka Advanced Materials Vietnam	4410018940004
Denka Advanced Materials (Suzhou)	CN041504
Denka Electronics Materials Dalian	CN036861
Denka Inorganic Materials (Tianjin)	19ACM8542Q
Denka Performance Elastomer	10001143 QM15
Denka Polymer	JUSE-RA-1970
Denka Elastlution	4271188
Kyushu Plastic Industry	4384075
Denka Astec Co., Ltd Kasai Plant	JA0107-22Q-1

* Call individual sites for the certified products from each site.

Environmental Management (Acquisition Status by Certification) (As of the end of January, 2023)

Status of ISO13485 (Medical Devices and In-Vitro Diagnostic Medical Devices Quality Management System) certification acquisition

Site name	Register Number
Gosen Site	Q5 055720 0003

* Call individual sites for the certified products from each site.

Status of IATF16949 (Automotive Industry Quality Management System) certification acquisition

Site name	Register Number
Omuta Plant	451115

* Call individual sites for the certified products from each site.

Status of Occupational Health and Safety Management System certification acquisition

Site name	Certification System	Register Number
Chiba Plant	ISO45001	JP020719
Omi Plant	OSHMS	10-15-6

ISO14001 and ISO45001 integrated into one management system

Site name	Certification System	Register Number
Denka Singapore Seraya Plant	ISO14001 & ISO45001	10348866

Status of ISO28000 certification acquisition

Site name	Certification System	Register Number
Denka Singapore Seraya Plant	ISO28000	53602

ISO50001 (Energy Management) certification acquisition

Site name	Certification System	Register Number
Denka Singapore Seraya Plant	ISO50001	10474031

ISCC-PLUS (International Sustainability and Carbon Certification)

Site name	Certification System	Register Number
Denka Singapore Seraya Plant	ISCC-PLUS	ISCC-PLUS-Cer-DE100-13931123

Environmental Accounting

Environmental Conservation Costs

The main items of environmental investment in fiscal 2022 were environmental burden reduction (26%), global environmental conservation costs as a result of the introduction of energy-saving equipment (73%).

Conservation Cost Category		Details of Effects	Environmental Conservation Costs (million yen)	
			Investments	Expences
1) Costs around our business area		(Subtotal)	3,513	2,866
Details	①Pollution prevention	Environmental burden reduction	916	2,283
	②Global environmental preservation	Energy saving	2,581	228
	③Recycling Resources	Effective use of resources	16	356
2) Upstream and downstream costs		Change of raw materials, etc.	0	0
3) Administrative costs		ISO Maintenance Management, Educational activities	2	29
4) R&D costs		Development of energy saving products, etc.	125	842
5) Social activity costs		Community relations	0	2
6) Environmental damage costs		Natural Restoration, Imposition on Pollution Load	8	81
7) Others			0	0
Total			3,648	3,821

Conservation Effects

Data on environmental burden has been summarized. Details can be found in the Fiscal 2022 Environmental Performance Data page of the ESG information site (https://denka_sustainability.disclosure.site/en/themes/649).

Environmental Burden	Units	FY2020 Results	FY2021 Results	FY2022 Results	Effects
CO ₂ emissions(from energy and non energy sources)	million tons	175	197	185	12
SO _x emissions	tons	41	46	33	13
NO _x emissions	tons	3,685	3,393	3,747	-354
Soot and dust emissions	tons	66	109	68	41
COD (BOD) emissions	tons	178	181	275	-94
Water used	thousand tons	54,369	58,257	58,451	-194
PRTR substance emissions	tons	68	83	61	22
Waste	thousand tons	103	121	122	-1
Final landfill waste	tons	73	63	50	13
CO ₂ emissions from transportation	thousand tons	32	34	31	3

Economic Effects

Substantial economic benefits associated with environmental conservation measures include the following profit on sale of valuables, energy cost reduction through energy saving, and processing cost reduction through resource saving activities.

Category	Item	Details of Effects	Effects (million yen)
Profits	Business income through recycling waste generated from main business activities or recycling used products	Sales profits	682
Cost Reductions	Energy cost reduction through energy saving	Energy saving	208
	Reducing waste treatment costs by conserving or recycling resources	Effective use of resources	16
Total			907

Overview of our Employees

Related Data

Human Resources Data (Consolidated Basis)

(Persons)

	FY2018	FY2019	FY2020	FY2021	FY2022
Number of employees *Based on Annual Securities Report	6,133	6,316	6,351	6,358	6,406
(Foreign nationals)	900	934	971	998	1,027
By Regions					
Japan	5,206	5,308	5,380	5,334	5,346
Asia (Excluding Japan)	657	704	701	747	760
Americas	239	267	238	237	260
Europe	31	37	32	40	40
Number of foreign nationals in managerial positions	169	151	146	143	145
(Department Heads)	—	—	—	—	—
(Officers)	—	—	—	—	—

Number of Resignees (non-consolidated basis)

FY2018	FY2019	FY2020	FY2021	FY2022
53	47	78	94	103

Number of people resigning within 3 years of recruitment (non-consolidated basis)

	FY2018	FY2019	FY2020	FY2021	FY2022
Number of people (persons)	3	6	13	13	18
Percentage of Resigns (%)	4	6	12	10	11

Labor Unions (non consolidated basis)

	FY2018	FY2019	FY2020	FY2021	FY2022
Number of labor union members (persons)	2,702	2,793	3,437	3,310	3,385
Percentage of labor union members (%)	83	83	83	81	81

Strengthening of Human Resources development systems

Cultivation of future executive manager candidates, building of company-wide, integrated education framework, and fostering of a selfdirected learning culture

Average training costs (Per person / year) (ten thousand yen)

FY2018	FY2019	FY2020	FY2021	FY2022
–	5.6	3.1	5.3	6.6

Promotion of Diversity, Equity & Inclusion

Fostering of workplace environments, systems, and culture that empowers individuals with diverse ways of thinking to demonstrate their capabilities

Number of Employees by Gender and Average Age (non-consolidated basis)

	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Number of Employees	Persons	3,250	3,349	4,166	4,081	4,198
Male	Persons	2,793	2,866	3,420	3,336	3,419
Female		457	483	746	745	779
Average Age	Age	40.6	40.7	40.5	40.8	40.7

Average years of service (non-consolidated basis) (year)

	FY2018	FY2019	FY2020	FY2021	FY2022
Average years of service	17.1	17.1	16.5	16.8	16.4
Male	18.6	18.6	18.0	18.2	17.9
Female	8.0	8.2	9.5	10.2	10.2

Number of new recruits (non-consolidated basis) (persons)

	FY2018	FY2019	FY2020	FY2021	FY2022
Number of new recruits	170	190	187	111	242
G-category graduates (by gender)	Male : 29 Female : 14	Male : 29 Female : 15	Male : 36 Female : 23	Male : 30 Female : 12	Male : 198 Female : 44
Foreign national employees	4	1	2	1	7

Number of women in managerial positions (non-consolidated basis) (persons)

	FY2018	FY2019	FY2020	FY2021	FY2022
Manager or above	5	6	8	9	19
Department head	0	0	0	0	0
Officers	0	0	0	0	0

Number of foreign nationals in managerial positions (non-consolidated basis) (persons)

	FY2018	FY2019	FY2020	FY2021	FY2022
	2	0	3	3	3

Retiree Reemployment Rate (non-consolidated basis) (%)

	FY2018	FY2019	FY2020	FY2021	FY2022
	94	87	86	89	88

Percentage of employees with disabilities (non-consolidated basis) (%)

	FY2018	FY2019	FY2020	FY2021	FY2022
	2.29	2.24	2.19	2.16	2.08

Work Style Reforms

Promotion of system reforms to create workplaces that employees will “want to come to work again tomorrow”

Total Working Hours (non-consolidated basis)

(hours)

FY2018	FY2019	FY2020	FY2021	FY2022
1,943	1,931	1,928	1,953	1,916

Overtime hours (non-consolidated basis)

(hours)

FY2018	FY2019	FY2020	FY2021	FY2022
140	135	133	172	151

Paid leaves (non-consolidated basis)

	FY2018	FY2019	FY2020	FY2021	FY2022
Number of days taken (days)	11.8	12.7	13.1	14.1	15.7
Percentage of paid leaves taken (%)	62	67	69	75	80

* The percentage of employees taking annual leave is calculated by dividing the number of paid vacation days used by the number of paid vacation days x 100.

Number of employees who took maternity leave (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
19	25	22	23	25

Newly taken childcare leave (non-consolidated basis)

	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Number of employees newly eligible to take childcare leave	Persons	68	90	81	147	130
Number of female employees newly eligible to take childcare leave	Persons	19	25	22	34	25
Number of female employees who took childcare leave for the first time	Persons	19	24	22	34	25
Percentage that took leave	%	100	96	100	100	100
Number of male employees newly eligible to take childcare leave	Persons	49	65	65	113	105
Number of male employees who took childcare leave for the first time	Persons	2	3	6	23	46
Percentage that took leave	%	4	5	9	20	44

Childcare leave (non-consolidated basis)

	Unit	FY2018	FY2019	FY2020	FY2021	FY2022
Number of employees who took childcare leave	Persons	35	42	53	81	106
Number of female employees who took childcare leave	Persons	33	39	46	62	56
Percentage of female employees who reinstated	%	100	100	100	100	100
Number of Male employees who took childcare leave	Persons	2	3	7	19	50
Percentage of Male employees who reinstated	%	100	100	100	100	100

* Childcare leave can be taken in daily increments.

* The percentage of male employees taking childcare leave is calculated by dividing the number of male employees taking childcare leave by the number of male employees with spouses who have given birth in the period under review x100.

Number of employees who used our short hour working system (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
33	53	60	79	71

Number of employees who accessed programs supporting extended careers (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
123	86	94	93	83

Number of employees who took nursing care leave (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
0	0	0	0	0

Number of employees who took half-day sick child care leave (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
0	33	81	214	—

* Half-day nursing leave was revised in April 2022 and has been changed to hourly nursing leave.

Number of employees who took volunteer activity leave (non-consolidated basis)

(persons)

FY2018	FY2019	FY2020	FY2021	FY2022
0	0	0	0	0

ESG information site Work Related Data https://denka_sustainability.disclosure.site/en/themes/712

Denka Report 2023 [Social \(Human Resources Value Creation Initiatives\)](#)

Health and Productivity Management

Encouraging our employees and their families to stay healthy is an important issue faced by Denka in its business management. We are committed to promoting health management with the aim of increasing corporate value by ensuring that our employees are both physically and mentally healthy as they engage in their work, perform at their full potential, and increase their productivity.

In January 2021, we established Health Promoting Sec. as an organization for the implementation of this initiative. In April 2021, we issued a press release announcing the Declaration of Health and Productivity Management, which articulates the philosophy and Denka Principles for our health management.

Declaration of Health and Productivity Management

Declaration of Health and Productivity Management April, 1 2021

Denka established The Denka Value, its corporate philosophy, and pursues its mission, "Taking on the challenge of expanding the possibilities of chemistry to create new value and contribute to sound social development." Leveraging the advantages Denka wields in its specialties, it pursues sound, sustainable growth.

In the pursuit of sound growth, Denka believes that its employees are important assets. Accordingly, Denka is actively committed to creating an environment where each individual employee is able to fully demonstrate their capabilities, and to enhancing the health and well-being of its employees and their families.

As part of this commitment, Denka declares its determination to practice "health and productivity management" that organizationally supports the well-being of its employees to ensure they are able to maintain their physical and mental health and continue working energetically.

Through the healthcare business, which is one of its businesses, Denka also contributes to the enhancement of the health and QOL of our employees and people around the world.

Toshio Imai

Denka Company Limited
Representative Director, President

Denka Principles

To protect the well-being of our human resources and their families, the entire Denka Group comes together to implement activities for health and productivity management, including encouraging employees and their families to stay healthy. These activities are based on our offices' existing labor safety and health systems and also involve the cooperation of health insurance associations and labor unions, with the new Health Promoting Sec. playing a central role.

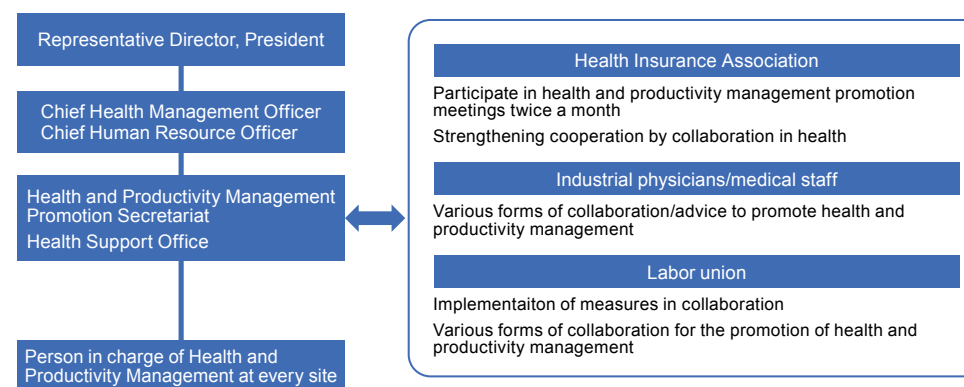
Denka will stay focused on the creation of an environment where each one of its employees is committed to the enhancement of their health to enrich their own lives and truly represent "The Denka Value."

ESG information site [Health Management https://denka_sustainability.disclosure.site/en/themes/757](https://denka_sustainability.disclosure.site/en/themes/757)
Denka Report 2023 [Social \(Human Resources Value Creation Initiatives\)](#)

Promotion system

In order to promote health management that is integrated with corporate management, Chief Human Resource Officer(CHRO) serves as the Chief Health Management Officer and promotes health management in cooperation with health insurance unions, industrial physicians and other medical staff, and labor unions.

The secretariat provides annual feedback on the status of health issues and measures implemented at each business site, including plants, in Japan. The secretariat also provides a range of support to strengthen the promotion of health management at each business site.



Health and productivity management is also promoted in conjunction with initiatives related to worksite safety, and health, security and disaster prevention. Specific policy, framework, initiatives and indicators, etc. are disclosed below.

ESG information site [Prioritization of Safety https://denka_sustainability.disclosure.site/en/themes/656](https://denka_sustainability.disclosure.site/en/themes/656)
Denka Report 2023 [Place the Utmost Priority on Safety](#)

Health and Productivity Management

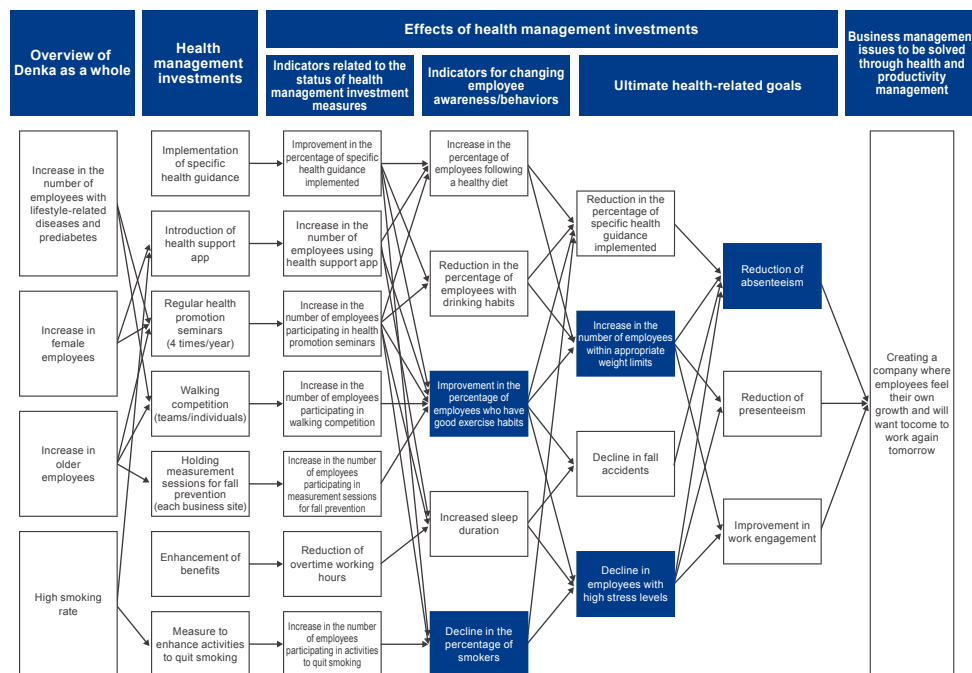
Health Challenges and Goals

In order to achieve the goals of health and productivity management, namely "creating an environment where each individual employee is able to fully demonstrate their capabilities" and "enhancing the health and well-being of its employees and their families." we have created a Health Management Strategy Map that illustrates the connections between goals and relationships of each policy through health management investments.

In order to create a workplace environment that supports the wellbeing of our employees to enable them to work to their full potential, both physically and mentally for the realization of a company, which enables each individual employee to feel their own growth and make employees want to come to work again tomorrow, we have set the improvement goals. Specifically, the goal for mental health is to "reduce the number of highly stressed employees," and to "increase the number of employees with ideal body weight" for physical health. We have positioned improvements in "exercise habits" and "anti-smoking" as priority challenges and will continue to deploy measures to achieve the aforementioned improvement goals.

Based on the results of an analysis of health issues, we have added "increased risk of lifestyle-related diseases" and "employee aging" as priority issues, and have established goals of "enhancing approaches for prediabetes" and "reducing fall accidents" in order to further enhance related measures.

1) Health Management Strategy Map



2) Actual Figures and Target Figures for Main Indicators

The main target figures fluctuated due to restrictions on leaving home and the increased use of remote work caused by COVID-19.

While reinforcing measures related to the improvement of each indicator, we will also assess the impact of the measures on indicator improvements.

Indicators	Results						Targets	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2025	FY2030
Absenteeism (%)	—	—	—	0.43	0.69	0.65	—	—
Employees with ideal body weight (%)	67.4	66.3	64.3	64.9	65.0	63.9	68.0	80.0
Employees with high stress levels (%)	13.6	13.1	12.9	12.7	13.4	14.8	11.0	Below 10.0
Good exercise habits (%)	31.3	32.7	33.1	33.0	32.9	32.5	37.0	Below 40.0
Smokers (%)	34.0	32.4	33.7	32.3	31.0	26.8	21.0	Below 12.0

* Absenteeism is calculated by dividing the number of sick leave days for all employees by the number of prescribed working days for all employees x 100.
 * Absenteeism covers all employees, with an average of 5,265 employees in fiscal 2022.
 * The number of employees within an appropriate body weight limit is calculated based on the number of employees with a healthy BMI divided by the number of employees who have undergone medical exams.
 * Employees with high stress levels are calculated based on the number of highly stressed employees divided by the number of employees who have received a stress test.
 Employees with high stress levels: Highly stressed employees requiring guidance by a doctor based on the result of a stress test.
 * Good exercise habits are calculated based on the number of employees who answered that they have good exercise habits during regular health checkups divided by the number of employees receiving the checkups.

3) Relevant indicators

Indicators	Results					
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Percentage of employees that had periodic health exams (%)	—	—	99.9	99.7	99.6	100
Percentage of employees that had a stress test (%)	95.2	98.0	98.1	98.3	93.2	94.6
Percentage of specific health guidance implemented (%)	35.7	43.8	63.6	35.4	41.1	—
Total working hours (hours)	1,942	1,943	1,931	1,928	1,953	1,916
Total overtime hours (hours / person)	130	140	135	133	172	157
Number of paid vacation days used (days)	10.5	11.8	12.7	13.1	15.0	16.0
Percentage of paid annual vacation days used (%)	55.0	62.0	67.0	69.0	73.0	80.0
Number of employees leaving the company (persons)	44	53	47	87	94	103

The percentage of employees who received a thorough examination after a periodic health exam was 61.1% in fiscal 2022.

Health and Productivity Management

Measures to Achieve Health and Productivity Management

1) Mental Health Care

① Stress Check

Stress tests are conducted once a year to help each employee understand his/her own stress condition and to support self-care to prevent stress and reduce stressors.

In addition, we conduct interviews using industrial physicians for employees who have been diagnosed with high stress levels in close cooperation with industrial medical staff.

Furthermore, group analysis is conducted on an organizational basis to identify overall health risks, status of highly stressed employees, stress factors, etc., and then improvements are made in the workplace and work environment to reduce risks.

② Support from external specialized organization

We have established an external 24-hour health counseling service by doctors and other specialists for our employees and their families. In addition to mental health counseling, the service provides a wide range of health and medical consultation services to support employees in managing their mental and physical health.

③ Enhancement of benefits

We have established various benefit plans for employees and their families with the aim of enriching employees' personal lives and improving their health through refreshing both physically and mentally.

Employees can freely access a wide range of benefits, including accommodation, gourmet meals, leisure, sports, etc., to help them achieve a better work-life balance.

2) Lifestyle-related Diseases

① Specified health checkups and specific health guidance

We include specified health checkups as part of regular health checkups for all ages at all of our business sites in Japan. We have established a system that ensures that employees are able to check their own risk of lifestyle-related diseases once a year.

We are also working to improve the implementation percentage for specific health guidance through cooperation between employer and health insurance association.

② Anti-Smoking Support

As an enhancement measure for anti-smoking activities, we introduced a remote smoking cessation counselling last fiscal year. We aim to further reduce the percentage of smokers by adding smoking cessation clinic support and assistance in purchasing tools such as smoking cessation aids (patches, gum) to help smokers choose measures that best suit their individual circumstances.

In addition, we are gradually creating a smoke-free environment with a target of the removal of all smoking areas at every site by 2026.

③ Introduction of health support app

As part of our population approach, we are deploying a health support app for smartphones.

The application supports employees for their active health improvement by tracking daily steps and physical condition, improving health literacy through health-related quizzes and columns, and establishing daily exercise habits through individual and team competition events in which participants compete in the number of steps taken.

④ Labor and Management jointly sponsored walking contest

In collaboration with the labor union, a walking competition was held for domestic business sites to compete for the average number of steps taken per team.

In addition to the President's Award given to the overall top teams, Labor Union and Perfect-Match Awards were given to top teams of each site. The report on the award ceremony were posted at each site, making it more exciting for everyone, including teams that ranked lower. The event contributed not only to improving physical fitness, but also to encouraging communication.

In fiscal 2021, we started a walking held every year through co-hosting by labor and management. In May 2023, approximately 2,000 employees participated.

3) Fall accident prevention

① Holding Measurement sessions for fall prevention

As the average age of our employees increase, and is most likely to continue to do so, we held measurement sessions for fall prevention at all of our major business sites in an effort to further enhance company-wide measures to prevent fall accidents. In addition to measurements, exercise guidance is provided based on the results to help employees raise self awareness and strengthen awareness of the importance of exercise they will do.

We are also going one step further, working to visualize the level of risk at each business site by tabulating the results and using these to promote future activities.



4) Disease Prevention

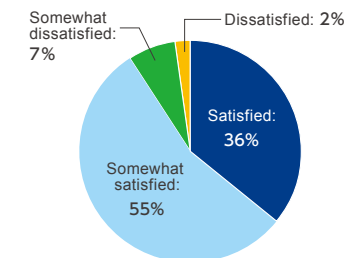
① Organizing health promotion seminars

Since 2023, the last week of May has been designated "Denka's Health Week." During this week, we hold health promotion seminars daily to help employees gain the basic knowledge necessary for the prevention of diseases, such as lifestyles and working styles in the era of a 100-year life expectancy, and not only lifestyle-related diseases but also cancer, mental health, health issues specific to women, and anti-smoking. We also hold other health promotion seminars several times a year.

* Denka's Health Week seminar participants: Approx. 600

* Number of participants of seminars of Health Issues Specific to Women : 175

② Health Promotion Seminar Satisfaction Survey Results



③ Subsidies by the health insurance association

As part of the healthcare program, the health insurance association provides complete medical checkups, cancer and gynecological screenings, and free flu vaccines for employees and vaccine cost subsidies for their families, as well as free periodontal examinations.

Health and Productivity Management

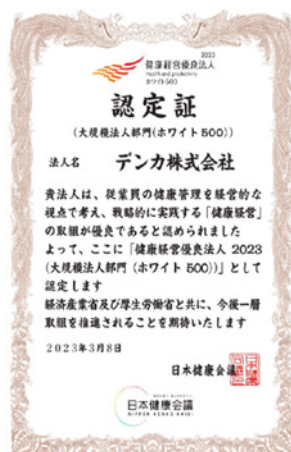
5) External Initiatives

We are also actively engaged in promoting health management among our business partners and contributing to the health of society as a whole.

- ① Development and provision of vaccines and other pharmaceutical products
 - ② Organizing study sessions and health events with partner companies and other external parties
- Health management investment in fiscal 2022 totaled approximately 30,000 yen/employee.

Certification as Health & Productivity Management Outstanding Organization, White 500

This certification program is a system under which corporations that practice outstanding health and productivity management, particularly good health management based on initiatives that meet local health issues and health promotion initiatives promoted by the Nippon Kenko Kaigi. The top 500 organizations certified by the Health and Productivity Management Organization receive White 500 certification. In January 2021, we established the "Health Support Office", as an organization for the implementation of this initiative. In April 2021, we formulated the Declaration of Health and Productivity Management, which articulates the philosophy and Denka Principles for our health and productivity management. We have implemented a range of measures in collaboration with the health staff and insurance association. For example, we have started the centralized management of data from employee health checks, and based on the analysis of this data, we have established KPIs. Most recently, we have started providing employees with remote guidance on quitting smoking, deploying a health support app for smartphones, and holding health promotion seminars regularly. We will continue our efforts to comply with certification standards, and moving forward, we will continue to support the wellbeing of our employees to enable them to work to their full potential, both physically and mentally and feel their own growth.



Declaration of Health KPI

We have started the centralized management of data from employee health checks, and based on the analysis of this data, we will establish KPIs and implement measures aimed at preventing the onset and severity of lifestyle-related diseases, etc., in collaboration with the health insurance association and the Health Promoting Sec. Most recently, we have started providing employees with opportunities to visit remote clinics to assist them to quit smoking and have further reinforced specific health guidance provided to employees. Moving forward, we will continue to support the wellbeing of our employees to enable them to work to their full potential, both physically and mentally.

ESG information site Health Management https://denka_sustainability.disclosure.site/en/themes/757
Denka Report 2023 [Social \(Human Resources Value Creation Initiatives\)](#)

Biography of our Directors



Chairman and Director

Manabu Yamamoto

Career summary and significant concurrent positions, etc.

- April 1981 Joined the Company
- June 2004 General Manager of Functional Ceramics Div. of Electronics Materials Business Group of the Company
- April 2009 Executive Officer, General Manager of Electronics Materials Div. of Electronics Materials Business Group of the Company
- April 2011 Senior Executive Officer of the Company
- April 2013 Managing Executive Officer, Head of Electronics & Innovative Products of the Company
- June 2013 Director and Managing Executive Officer of the Company
- April 2015 General Manager of Corporate Planning Dept. of the Company
- April 2016 Director and Senior Managing Executive Officer of the Company
- June 2016 Outside Audit & Supervisory Board Member of Koatsu Gas Kogyo Co., Ltd. (until June 2019)
- April 2017 Representative Director, President and Chief Executive Officer of the Company
- April 2021 Chairman and Representative Director of the Company
- April 2023 Chairman and Director of the Company (present)



Representative Director, President & CEO

Toshio Imai

Career summary and significant concurrent positions, etc.

- April 1982 Joined the Company
- October 2006 General Manager, Styrene Div. of the Company
- June 2011 General Manager, Corporate Planning Dept. of the Company
- April 2013 Executive Officer, Assistant to General Manager, Elastomers & Performance Plastics of the Company
- April 2015 General Manager, Elastomers & Performance Plastics of the Company
- April 2017 Managing Executive Officer of the Company
- April 2019 General Manager, Denka Value-Up Promotion Dept. of the Company
- June 2019 Director and Managing Executive Officer of the Company
- April 2020 Director and Senior Managing Executive Officer of the Company
- April 2021 Representative Director, President and Chief Executive Officer of the Company (present)



Representative Director

Kazuo Takahashi

Career summary and significant concurrent positions, etc.

- April 1983 Joined the Company
- October 2013 Deputy General Manager, Chiba Plant of the Company
- April 2015 General Manager, Ofuna Plant of the Company
- April 2017 Executive Officer, General Manager, Omuta Plant of the Company
- April 2019 President of Denka Performance Elastomer LLC
- April 2021 Managing Executive Officer of the Company
- June 2021 Director and Managing Executive Officer of the Company
- April 2023 Representative Director and Senior Managing Executive Officer of the Company (present)



Director

Ikuo Ishida

Career summary and significant concurrent positions, etc.

- April 1985 Joined the Company
- April 2009 General Manager, Functional Films Dept., Electronics Materials Div. of Electronics Materials Business Group of the Company
- October 2011 General Manager, Advanced Fillers Dept., Electronics Materials Business Group of the Company
- October 2013 General Manager, Advanced Specialty Materials Dept., Electronics & Innovative Products of the Company
- April 2017 Assistant General Manager, Electronics & Innovative Products of the Company
- April 2019 Executive Officer and General Manager, Electronics & Innovative Products of the Company
- April 2023 Managing Executive Officer of the Company
- June 2023 Director and Managing Executive Officer of the Company (present)



Outside Director

Yoshiyuki Fukuda

Career summary and significant concurrent positions, etc.

- April 1979 Joined The Industrial Bank of Japan, Limited
- April 2004 General Manager, Business Division No.7 of Mizuho Corporate Bank, Limited
- March 2006 Executive Officer, General Manager, Corporate Banking Division No.15 of Mizuho Corporate Bank, Limited
- April 2007 Executive Officer, General Manager, Securities Division of Mizuho Corporate Bank, Limited
- April 2008 Managing Executive Officer in charge of Corporate Banking of Mizuho Corporate Bank, Limited
- April 2010 Managing Executive Officer, Chief Compliance Officer and Chief Credit Officer of Mizuho Corporate Bank, Limited
- April 2011 Managing Executive Officer, Head of Corporate Banking Unit of Mizuho Corporate Bank, Limited
- April 2012 Managing Executive Officer, Head of Corporate Banking Unit (Large Corporations) and Corporate Banking Unit of Mizuho Corporate Bank, Limited (until March 2013)
- April 2013 Deputy President and Deputy President-Executive Officer, Head of Investment Banking Division, Head of Public & Financial Institutions Group of Mizuho Securities Co., Ltd. (until March 2014)
- April 2014 Chairman of Shinko Asset Management Co., Ltd. (until November 2015)
- November 2015 President & CEO of Fund Corporation for the Overseas Development of Japan's ICT and Postal Services Inc. (until June 2021)
- June 2021 Outside Director of the Company (present)



Director (Full-time Audit Committee Member)

Mizuhiro Uchida

Career summary and significant concurrent positions, etc.

- April 1984 Joined the Company
- April 2008 General Manager, Business Planning Dept., Resin Process Div., Resin Process Business Group of the Company
- April 2010 General Manager, Purchasing Dept. of the Company
- April 2014 Deputy General Manager, Chiba Plant of the Company
- July 2017 General Manager, Internal Auditing Dept. of the Company
- April 2021 General Manager, Internal Control Dept. of the Company
- April 2023 Assigned to the Audit Committee of the Company
- June 2023 Director (Full-time Audit Committee Member) (present)



Outside Director (Audit Committee Member)

Toshio Kinoshita

Career summary and significant concurrent positions, etc.

- July 1983 Registered as Certified Public Accountant
- July 1989 Partner, U.S. Coopers & Lybrand L.L.P. (current PricewaterhouseCoopers) (until June 1998)
- June 1994 Representative employee of Chuo Audit Corporation (until July 2005)
- July 1998 Senior Managing Partner for North America, New York Head Office, U.S. PricewaterhouseCoopers L.L.P. (until June 2005)
- July 2005 Management Board Member for International Business of Tokyo Office of ChuoAoyama PricewaterhouseCoopers (until June 2007)
- July 2007 Chief Executive of The Japanese Institute of Certified Public Accountants (JICPA) (until July 2013)
- July 2013 Council Member of JICPA (until July 2016)
- June 2014 Outside Audit & Supervisory Board Member of Panasonic Corporation (until June 2022)
- July 2014 Representative Director of Global Professional Partners (present)
- August 2014 Outside Corporate Auditor of Weathernews Inc. (until August 2018)
- March 2015 Outside Director of Asatsu-DK Inc. (until December 2018)
- June 2015 Outside Audit & Supervisory Board Member of the Company
- June 2015 Outside Director of TACHI-S CO., LTD. (present)
- July 2015 Outside Director of Mizuho Bank, Ltd. (until September 2019)
- January 2018 Outside Director of ThreePro Group Inc. (current GiG Works Inc.) (present)
- June 2019 Outside Director (Audit Committee Member) of the Company (present)
(Up to the Present)



Outside Director (Audit Committee Member)

Akio Yamamoto

Career summary and significant concurrent positions, etc.

- April 1974 Joined Mitsui & Co., Ltd.
- April 1999 President of Mitsui & Co., Benelux S.A./N.V.
- April 2004 Vice President of Synthetic Resin & Inorganic Chemical Products Business Unit of Mitsui & Co., Ltd.
- April 2007 Executive Officer of Mitsui & Co., Ltd. (until March 2010), President of Mitsui & Co. (Thailand) Ltd.
- April 2009 Representative Director and President of Mitsui Bussan Plastic Trade Co., Ltd. (present Mitsui & Co. Plastics Ltd.) (until June 2014)
- June 2014 Counselor of Mitsui & Co. Plastics Ltd. (until June 2015)
- June 2015 Outside Director of the Company
- June 2021 Outside Director (Audit Committee Member) of the Company (present)



Outside Director (Audit Committee Member)

Miyuki Matoba

Career summary and significant concurrent positions, etc.

- April 2000 Registered as a lawyer (Tokyo Bar Association)
- April 2013 Executive Governor of the Japan Federation of Bar Associations (until March 2014)
- October 2015 Senior Leader, Management Support Division of MOS FOOD SERVICES, INC.
- April 2018 Risk Management & Compliance Group Leader of MOS FOOD SERVICES, INC. (until March 2019)
- April 2019 General Manager, Risk Management & Compliance Office of MOS FOOD SERVICES, INC. (until September 2020)
- September 2020 Intellectual Property and Legal Div., General Affairs H.Q. of NITTO KOHKI CO., LTD.
- April 2021 General Manager, Intellectual Property and Legal Div., General Affairs H.Q., and compliance supervisor of NITTO KOHKI CO., LTD. (present)
- June 2021 Outside Director (Audit Committee Member) of the Company (present)
(Up to the Present)

Overview of our Board of Directors and Audit Committee Members

Year		2019	2020	2021	2022
Directors	Male (persons) (of which Audit Committee Members)	11 (4)	11 (4)	8 (3)	8 (3)
	Female (persons) (of which Audit Committee Members)	1 (1)	1 (1)	1 (1)	1 (1)
	Percentage of females (%)	8	8	11	11
	Outside Director Ratio (%)	42	42	44	44
Number of meetings of the Board of Directors (times)		13	13	13	15
Number of meetings of the Audit Committee (times)		11 (5 meetings of the Audit & Supervisory Board)	15	14	14

* Company with Audit & Supervisory Board until June 20, 2019

Enhancement of Corporate Governance

We consider compliance not only to comply with laws and regulations, the Articles of Incorporation, and internal rules, but also and continue to comply with corporate ethics and social norms.

Compliance is a major premise of business activities. It is the cornerstone of the trust of our stakeholders and is an important management issue.

We have established a group compliance system on a global level as a management foundation for increasing the corporate value of the Denka Group into the future and continue to strive to strengthen our system.

Compliance Basic Policy

The Denka Group Ethics Policy codifies Groupwide standards of conduct. To ensure that this policy guides the actions of all, the Ethics Committee chaired by the President oversees the overall compliance structure and reports to management on compliance matters. Moreover, under the initiative of the Ethics Committee, such key business units as the Legal, Internal Auditing, HR Strategy, Intellectual Property, Environment and Safety, and Quality Assurance departments ensure thorough legal compliance in their respective areas of specialty. We also formulated the Standards of Business Conduct. Aiming to live up to the global standard, this move is intended to provide all Group officers and employees at home and abroad with clear and detailed guidelines on the actions they are expected to take in accordance with the provisions of the Denka Group Ethics Policy. Furthermore, we employ a "legal hazard map" to analyze the significance of compliance-related risks that may affect each Group company with the aim of enhancing the effectiveness and efficiency of compliance structures being developed and operated within the Denka Group.

Denka Group Ethics Policy

The "Denka Group Ethics Policy" establishes the code of conduct that officers and employees of each Denka Group company must comply with to maximize the corporate value of the Denka Group. Denka has established an Ethics Committee chaired by the president to ensure compliance with the Denka Group Ethics Policy within the Denka Group. The Ethics Committee comprehensively supervises and reports to management on the Denka Group's compliance. Under the Ethics Committee, in accordance with internal regulations, the Legal Department, which constitutes the Ethics Committee Secretariat, has established group rules, which are the common rules of the Denka Group.

We are promoting the strengthening of the group compliance system on a global level, including the establishment of policies and common company-wide rules for Denka, and the implementation of various compliance trainings for the Denka Group.

In addition, the Internal Control Department, Human Resources Strategy Department, Intellectual Property Department, Environment & Safety Department, Quality Assurance Department, and related departments are grouped together in each specialized area. We are responsible for ensuring compliance at all levels.

Global Common Business Conduct Standards -Standards of Business Conduct-

Established October 2019 / Revised July 2023

In order to enable all officers and employees of the Denka Group at home and abroad to act in accordance with the Denka Group Ethics Policy, Denka has established the "Denka Group Standards of Business Conduct" as an action guideline based on international standards that further clarifies and embodies the provisions of the Denka Group Ethics Policy. Provisions set forth in the Denka Group Ethics Policy include the following.

- Section 1 Basic Rules of Compliance
- Section 2 Protection of Environment and Health & Safety
- Section 3 Compliance with Antitrust Laws
- Section 4 Export Controls and Economic Sanctions
- Section 5 Prohibition of Insider Trading
- Section 6 Protection of Personal Data
- Section 7 Maintaining and Improvement of Product Quality
- Section 8 Confidential Information and Intellectual Property Rights
- Section 9 Anti-Money Laundering
- Section 10 Anti-Corruption and Gifts & Entertainment
- Section 11 Political Activities and Political Contributions
- Section 12 Respecting Local Society -International Operations Policy-
- Section 13 Respecting Human rights in workplace and supply chain
- Section 14 Speaking-up and reporting concerns



Japanese



English

The basic rules set forth in Section 1 include not only the purpose for which the standards of conduct were established, but also the standards of conduct for matters that tend to be breeding grounds for misconduct by officers and employees, such as the purpose for which corporate assets are protected and used, accurate records, correct reporting, cooperation in audits and investigations, and the standards of conduct when the interests of the company conflict with those of individuals. The "Standards of Business Conduct" have been prepared in both Japanese, English and Chinese are not only distributed to executives and employees of Denka and its Group companies in the form of a booklet, but are also made available on the Intranet.

 [Corporate Governance Report](https://sustainability-cms-denka-sustainability-s3.s3-ap-northeast-1.amazonaws.com/pdf/cgreport_2022.pdf)
https://sustainability-cms-denka-sustainability-s3.s3-ap-northeast-1.amazonaws.com/pdf/cgreport_2022.pdf

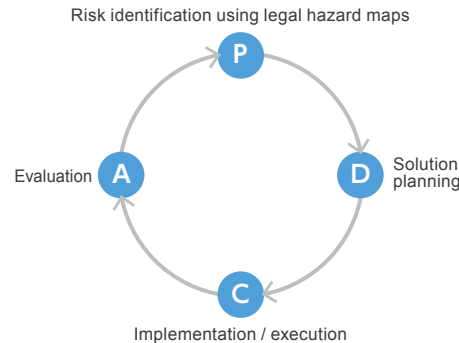
ESG information site [Maintaining Strict Compliance with Laws, Regulations and Corporate Ethics](https://denka_sustainability.disclosure.site/en/themes/675)
https://denka_sustainability.disclosure.site/en/themes/675

Denka Report 2023 [Denka Group's Compliance](#)

Enhancement of corporate governance

Utilization of the Legal Hazard Map for the Strengthening of Compliance Structure

Having identified more than dozen legal fields closely associated with the Group business operations, Denka utilizes a legal hazard map designed to assess the magnitude of compliance risks affecting the Group. Employing this map, we formulate the Denka Global Compliance Program, a Groupwide plan for providing compliance education in an effective manner. Moreover, we continuously work to enhance our compliance structures via, for example, the development and review of Group Policies and other in-house rules applicable to all Group members as well as Denka's Companywide rules.



Legal Fields in Which Denka Group Companies Must Maintain Acute Compliance Awareness and Examples of Typical Compliance-Related Misconduct Associated with These Fields

Labor laws (e.g. Labor Standards Act)	Unfair Competition Prevention Act	Foreign Exchange and Foreign Trade Act
<ul style="list-style-type: none"> Overtime without supervisor approval Power harassment The lack of a safe and hygienic working environment 	<ul style="list-style-type: none"> Illicit acquisition and use of another company's trade secret Leakage of a Denka trade secret and illicit use by other company 	<ul style="list-style-type: none"> Unlicensed export of goods named in the list of regulated items The provision to non-residents of technologies named in the list of regulated technologies

Denka Global Compliance Program

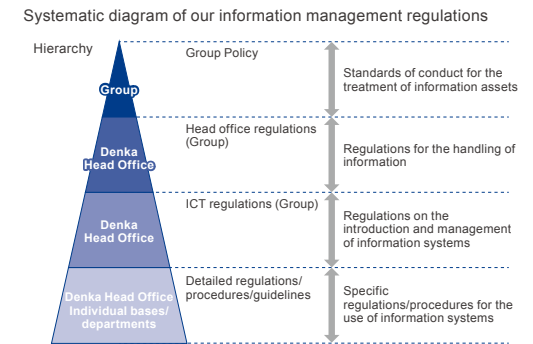
Based on the "Legal Hazard Map," the Legal Department provides training on general compliance as stipulated in the "Standards of Business Conduct," and on labor laws, harassment prevention, information security, including the protection of personal and confidential information, compliance with competition law, and security export controls, etc. to officers and employees of Denka Group companies at home and abroad through group training programs, webinars, and E-learning systems.



Training at Malaysian subsidiary

Improvement of Group policy (Group-wide regulations) and company-wide regulations

Denka has formulated and revised its Basic Information Security Policy, the Denka Group ICT Governance Policy, the Denka Group Information Security Policy, the Denka Group ICT System Usage Policy, and the Denka Group Secrecy Policy as group policies related to information security and ICT governance in accordance with ISO 27001, the international standard for information security. These policies were implemented in April 2021. We will systematically conduct training for officers and employees of the Denka Group on each of our information security policies and strive to ensure full awareness of these policies.



System to Review Contractual Legal Matters

In order for Denka Group to conduct fair and equitable transactions with customers, suppliers and other business partners, it is indispensable to review the content of contracts from a legal and business perspective. For this reason, we have established and are operating a system to complete the process from the review of contracts by the Legal Department before signing to the storage of the original copy of signed contracts on the in-house intranet using our own IT system (commonly known as the "Denka's Lexcalibur" —Legal Management workflow). On the basis of this system, we strive to find out and deal with risks that need to be addressed early and efficiently, while improving the convenience of contract review and storage of original contract documents.



Internal intranet providing legal information ("Legal4Denka")

ESG information site [Maintaining Strict Compliance with Laws, Regulations and Corporate Ethics](https://denka_sustainability.disclosure.site/en/themes/675)
https://denka_sustainability.disclosure.site/en/themes/675

ESG information site [System to Review Contractual Legal Matters](https://denka_sustainability.disclosure.site/en/themes/638)
https://denka_sustainability.disclosure.site/en/themes/638

Denka Report 2023 [Denka Group's Compliance](#)

Enhancement of corporate governance


Prevention of Insider Trading

In order to maintain the fairness of securities transactions and trust in the securities market, and to prevent the unauthorized use of the Company's information assets, the Denka Group Ethics Policy clearly stipulates that officers and employees of the Denka Group comply with laws and regulations concerning securities transactions and prohibits insider trading. Our company has established "Regulations on Internal Information Management and Insider Trading Prevention," which do not only prohibit information leaks, but also require prior notification when buying and selling company shares and those of other companies including business partners and prohibit transactions indiscriminately two weeks before the scheduled date of financial results announcement. In addition, the Standards of Business Conduct stipulate to officers and employees of the Denka Group that insider trading is prohibited, explaining that insider trading is not only a misuse of the Company's information assets, but also undermines the fairness of securities trading.

Through the Denka Global Compliance Program, a group-level compliance training program, we require that all officers and employees of the Denka Group at home and abroad comply with the laws and regulations governing securities trading in their respective countries.

In addition, the General Affairs Department posts notices on the intranet prohibiting trading in the Company's shares from two weeks prior to the announcement of financial results to the day of the results announcement, and regularly sends out e-mail reminders to all officers and employees regarding the prevention of insider trading prior to this announcement.

In addition to the use of the intranet, etc., we will continue to systematically provide compliance training to officers and employees of Group companies at home and abroad to ensure that they are thoroughly familiar with laws and regulations and internal rules concerning information protection and securities trading, and strive to ensure the appropriate management of information and prevent insider trading.

 ESG information site Corporate Governance /Corporate Activities Deserving Stakeholder Trust
Prevention of Insider Trading
https://denka_sustainability.disclosure.site/en/themes/642

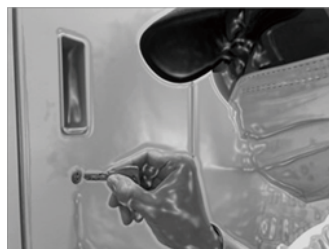
Information Protection and Management

Strengthening Groupwide ICT Governance

We have been promoting operational process reforms encompassing all aspects of our corporate activities ranging from R&D and manufacturing to sales and administration, with the aim of enhancing both operational efficiency and corporate governance. These initiatives involve the utilization and upgrading of information & communication technology (ICT) on a Groupwide basis.

At the same time, we have striven to protect the Denka Group's informational assets from incidents arising from the use of ICT, including data leakage and falsification, and to safeguard such assets from cyberattacks, which have become increasingly sophisticated in recent years. To this end, we pursue the development of security infrastructure for the entire Group while conducting risk management-based enhancement of our preventive maintenance regimen. The above activities are guided by a robust set of in-house rules regarding information security.

Going forward, we will help all Group companies at home and abroad strengthen ICT governance supporting their internal control systems as we endeavor to avoid loss and improve our corporate value.



Basic Information Security Policy

Article 1 (Compliance with Laws and Regulations)

The Denka Group complies with all relevant laws, regulations, orders and other social norms in relation to information security.

Article 2 (Establishment of Information Security Governance Systems)

In accordance with the Denka Group Ethics Policy, the Group shall strive to establish information security governance systems through the formulation of regulations to ensure the safe and appropriate management and use of information assets.

Article 3 (Management of Information Security Governance Systems)

The Group shall strive to ensure the appropriate management of its information security governance systems to prevent unauthorized access to company information systems, and the leakage, theft, falsification, destruction, or loss of information assets, through the use of ICT for internal business operations.

Article 4 (Information Security Training)

The Group shall continuously endeavor to ensure that all employees are fully aware of important rules and matters concerning the management of information assets and information security through e-learning and other forms of employee education.

Article 5 (Prevention and Response to Information Security Incidents)

The Group shall strive to prevent issues in relation to the security of its information assets. In the unlikely event that a problem does occur, we shall take prompt action to address the problem and prevent recurrence.

Article 6 (Continuous Improvement of Information Security Governance Systems)


The group shall continuously review its activities related to information security governance systems and strive to improve systems to ensure they meet the requirements of the times.

Article 7 (Enforcement)

This policy will take effect on April 1, 2021.

Online Information Management

Denka shall ensure management transparency by disclosing corporate information in a timely and appropriate manner in accordance with the Financial Instruments and Exchange Law and the timely disclosure regulations stipulated by the Tokyo Stock Exchange. Denka will also proactively disclose information that it deems useful to stakeholders, even if such information is not required to be disclosed by law or regulation. We will also create as many opportunities as possible, including financial results briefings, company briefings for individual investors, and our general meetings of shareholders, to further facilitate communication with our stakeholders and reflect their opinions in our management and business activities. Further, by disclosing information that is required to be disclosed under the regulations of the Tokyo Stock Exchange on our website only after it has been released by the TSE, we strive to prevent the unauthorized access to such information by third parties. In addition to limiting the number of website administrators and restricting access to work environments, we have established appropriate defense systems and contingency procedures. We will continue to strengthen ICT governance at home and abroad of our group companies in accordance with internal controls, and these measures will help avoid losses and further enhance corporate value.

 ESG information site Information Protection and Management https://denka_sustainability.disclosure.site/en/themes/643

Intellectual Property Activities Policy

[Basic Policy]

Respect the intellectual property rights of ourselves and others, and contribute to the Company's management through intellectual property activities.

[Major Intellectual Property Activities]

- We conduct regular investigations to prevent infringement of other companies' patent rights, and share this information with related departments to strengthen prevention of infringement of such rights.
- We acquire intellectual property rights to protect our intangible assets and take necessary legal action against those who violate our rights.
- We will proactively seek partners who can make use of intellectual property rights that contribute little to our business activities, with the aim of building a business ecosystem.
- Through intellectual property activities, we collaborate with internal and external stakeholders to facilitate businesses.

 ESG information site Protection of Intellectual Property Rights https://denka_sustainability.disclosure.site/en/themes/641

Enhancement of corporate governance

Compliance with export controls and economic sanctions

Regarding security export control that prohibits the export of products and technologies that lead to the development and manufacture of weapons of mass destruction, Denka requires its officers and employees to comply with export control laws and regulations through the "Denka Group Ethics Policy" and the "Security Trade Control Regulations," which form part of our internal regulations. Based on these regulations, we have established an Export Control Committee chaired by the President, and maintain and manage a security trade control framework, overseen by the Legal Department, which determines the applicability of products and technologies and reviews customer transactions. In addition, we strive to comply with the Foreign Exchange and Foreign Trade Act and the Export Trade Control Order by conducting internal audits and attending seminars outside the company.

Furthermore, the "Standards of Business Conduct" requires that officers and employees of the Denka Group comply with the export control laws and regulations of each country applicable to each export transaction, as well as laws and regulations related to economic sanctions. The Legal Department, which serves as the secretariat to the Export Control Committee, requires officers and employees of the Denka Group in Japan and overseas to comply with export control laws and regulations and economic sanctions in each country through the "Denka Global Compliance Program". In addition, in order to realize a prompt internal approval process, working with relevant departments, the Legal Department has been implementing a workflow, known by officers and employees as the "Export Boss" workflow, to determine applicability and screen customer transactions and chemical substances using ICT tools in an effort to comply with security trade control regulations. The Legal Department also conducts checks and monitoring to prevent transactions with countries, regions and parties that are at risk of sanctions under economic sanction-related laws and regulations in an effort to comply with economic sanctions.

 ESG information site Security Export Control https://denka_sustainability.disclosure.site/en/themes/640

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.

 ESG information site Promotion of BCP Measures Through Raw Material Risk Evaluation https://denka_sustainability.disclosure.site/en/themes/741

Establishment of a Sustainable Supply Chain

We would like to fulfill our social responsibilities together with the suppliers that form our supply chain. Therefore, we strive to establish good partnerships. The partnerships shouldn't be one-way relationships where we enforce our ideas but should be relationships where we and the suppliers mutually understand each other's situations, and then we ask them to agree on our intentions regarding ESG Basic Policy and take their own actions. Or we may ask the suppliers who are making excellent efforts on ESG for help to incorporate such efforts in our ESG activities. Aiming for such ideal relationships, we have been steadily strengthening our activities to physically visit the suppliers since fiscal 2017 with the goal of further improving partnerships.

In fiscal 2020, in order to prevent the spread of the COVID-19 pandemic, we continued to carry out activities using online interviews, for example, and we deepened our mutual understanding. Such activities not only strengthen our relationships with suppliers but also help strengthen the supply chain. We would like to establish relationships with many suppliers in which we can be recognized by society and develop together.

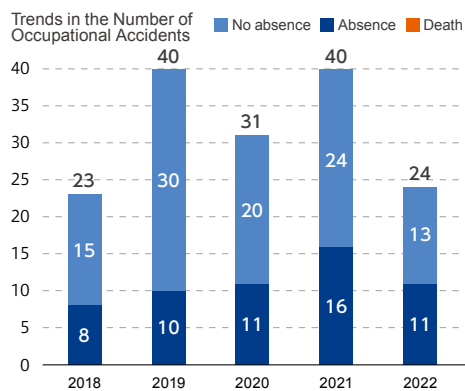
 ESG information site Strengthening of partnership with the supply chain https://denka_sustainability.disclosure.site/en/themes/631

Placing the Utmost Priority on Safety

Production Process-Related Accidents and Occupational Accidents

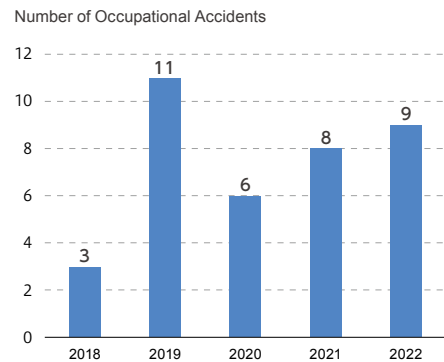
On June 14, 2023, at our Omi Plant, one employee from our partner company died and two others sustained injuries in an accident in which a pipe had burst during maintenance work at. We prays for the deceased and extend our condolences to the bereaved family. We also take this opportunity to express our 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.

In fiscal 2022, the number of occupational accidents was 24 (16 less than the previous fiscal year) and the occupational accident frequency rate was 0.7 (0.3 points less than the previous fiscal year), giving a reduction in both measurements. As in the previous year, one noticeable cause of accidents was a lack of due attention, such as the belief of workers in the safety of their surroundings. Therefore, we have not only invested in safety measures to make our facilities inherently safer, we have also promoted education to improve safety awareness (non-technical skills) and initiatives to ensure compliance with and enhance awareness of basic actions.

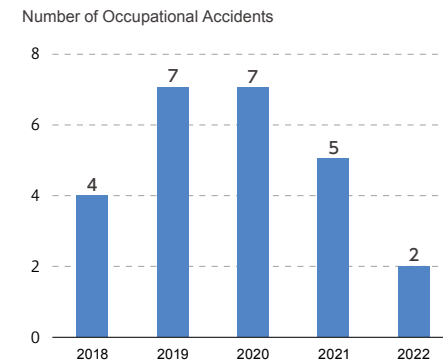


Safety Performance

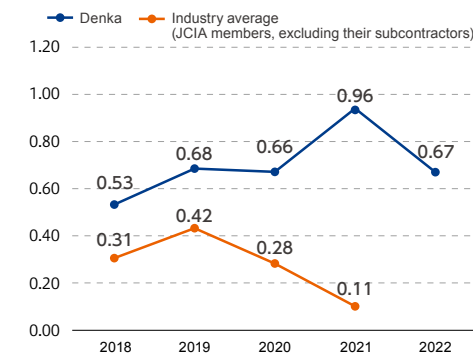
Trend in the number of accidents in which a worker is pinned down or caught by machinery



Trend in the number of accidents in which a worker falls

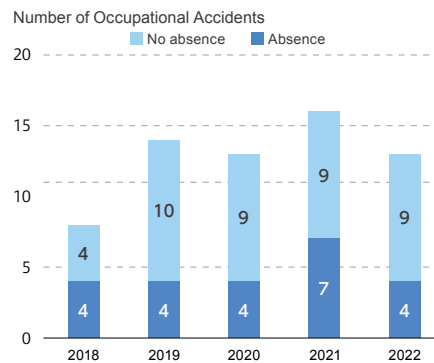


Accident Frequency Rates*

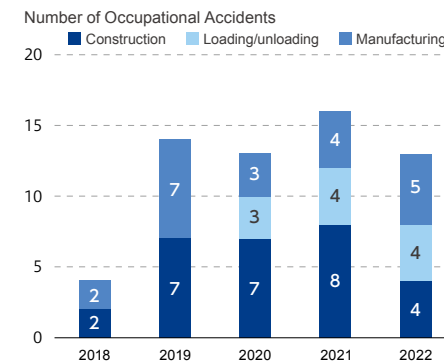


* Reported on a calendar year basis (January to December) based on regulations of the Labor Standard Inspection Offices and Japan Chemical Industry Association

Reference: Number of Occupational Accidents at Subcontractors



Reference: Number of Occupational Accidents at Subcontractors



ESG information site Safety Performance https://denka_sustainability.disclosure.site/en/themes/693
 ESG information site Production Process-Related Accidents and Occupational Accidents https://denka_sustainability.disclosure.site/en/themes/694
 Denka Report 2023 [Place the Utmost Priority on Safety](#)

Quality Assurance Management

Policy (Quality Policy)

The Denka Group handles a broad range of operations with an extensive product lineup ranging from various organic and inorganic materials to electronic materials and pharmaceuticals. For these diverse products, we have established a quality policy in conjunction with our "Mission 2030" management plan and are implementing quality assurance activities.

Quality Policy (Fiscal 2023)

Recognizing that quality assurance of products and services is an important management issue, the Denka Group undertakes compliance, thorough product safety, and continuous quality improvement activities to provide superior products and services through technologies that can be performed better than anyone else, thereby contributing to customer satisfaction and trust, problem resolution, and sustainable growth.

Activities to Improve Customers' Satisfaction

With the aim of accurately satisfying requests from customers and utilizing their feedback in quality assurance activities, annual customer satisfaction surveys are undertaken by the Electronics & Innovative Products Division.

Through these surveys, we analyze customer reviews and opinions from the aspects of product reliability, our quality response capabilities and partnerships with customers, thereby pushing ahead with systematic improvements. Negative feedback received from our customers through customer satisfaction surveys is used as a reference to examine and implement strategic responses to improve quality.

A large number of our customers have called for more communication, including the exchange of information and technologies and as a result, we are currently working to facilitate more detailed communication with our customers.

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.

ESG information site Quality Management https://denka_sustainability.disclosure.site/en/themes/736
 ESG information site Activities to Improve Customers' Satisfaction https://denka_sustainability.disclosure.site/en/themes/702
 ESG information site Our Response and Approach to Responsible Mineral Procurement https://denka_sustainability.disclosure.site/en/themes/703
 Denka Report 2023 [Risk Management](#)

Risk Management

Denka's Board of Directors recognizes that responding to the changing business environment and various social issues is an important management issue that leads to reductions of risks and to profit opportunities. The Board of Directors has established The Denka Group Basic ESG Policy as Denka's basic policy to proactively address these issues, and is working to improve the corporate value of the Denka Group over the medium to long term by appropriately responding to each risk, such as by strengthening compliance systems at the corporate group level and by transforming our business portfolio, challenging ourselves to create new businesses to solve social issues.

ESG information site Risk Management https://denka_sustainability.disclosure.site/en/themes/676

Compliance Hotline System

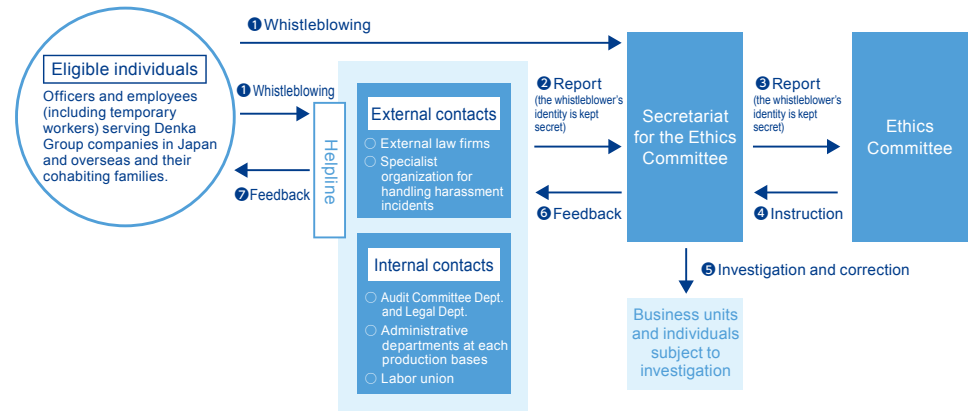
■ - The Denka Group Helpline System - Global Compliance Hotline System Based on Consumer Affairs Agency Guidelines

In order to further ensure compliance-focused management across the entire Denka Group and to identify and correct compliance related issues as early as possible, in October 2018, based on the guidelines set forth by the Consumer Affairs Agency, the Denka Group formulated its Group Policy on whistleblowing (Compliance Hotline Regulations) for each of the major Denka Group companies in Japan and overseas, which are also covered by the Denka Group Ethics Policy. Based on this policy, the Ethics Committee has established and is currently managing the Denka Group Helpline, which serves as an improved version of the former compliance hotline s-system. The Legal Department and the Audit Committee Department serve as the Ethics Committee secretariat, accepting whistleblowing and providing advice in Japanese and other languages from officers and employees of Denka Group companies and their family members by telephone, e-mail, fax, letter, and other means. In addition, to ensure that officers and employees of the Denka Group in Japan and overseas feel comfortable using the helpline, we have established several external helpline, including outside attorneys, to accept whistleblowing and provide advice in both Japanese and other languages. Further, in compliance with the Law for the Prevention of Power Harassment (Revised Law for the Comprehensive Promotion of Labor Measures), we have also established a "help desk for workplace harassment" to receive whistleblowing and provide advice on harassment and to address acts of harassment.

Based on this policy, an investigation team consisting of the secretariat and related departments conducts fact-finding investigations while protecting the confidentiality of the identity of the caller. When a problem is identified, in accordance with internal regulations, the relevant department and related departments work together to address and correct the problem as soon as possible, including disciplinary action, and provide feedback on the results of the investigation and any corrective measures to whistleblower. The policy stipulates that (1) appropriate whistleblowing using the compliance hotline system is a legitimate work action that contributes to the early detection of risks and the enhancement of corporate value; (2) in the operation of the Helpline, Denka imposes confidentiality obligations on the secretariat, investigation team, people working in conjunction with the team, management, and other company personnel, to ensure the anonymity of whistleblowers; and (3) Denka Group officers and employees are strictly prohibited from disadvantageous treatment or retaliation against whistleblowers.

The Ethics Committee encourages Denka Group officers and employees to proactively utilize this helpline by sending out messages from the President, distributing a handbook featuring instructions about how to use the helpline, posting posters in Japanese and other languages at each office and plant of the Denka Group in Japan and overseas, and making the information available through the intranet. Use of the helpline is also encouraged by distributing information about the compliance hotline system and contact points to all officers of the Denka Group in all compliance training in accordance with the Denka Global Compliance Program.

Compliance Hotline System Flow

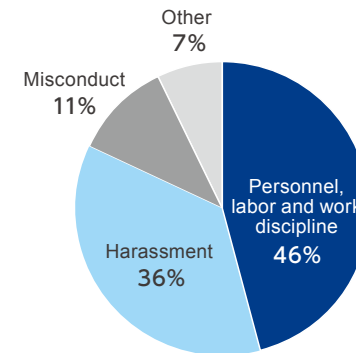


Number of reports

(件)

FY2020	FY2021	FY2022
20	23	23

Breakdown of Compliance Hotline System



(The above classifications are based on the content of the whistleblowing at the time of receipt and do not necessarily reflect identified facts.)

ESG information site Compliance Hotline System https://denka_sustainability.disclosure.site/en/themes/674

Denka Report 2023 Risk Management

Risk Management

Our Stance against Corruption and Money Laundering

■ Measures to Prevent Corruption

The Denka Group Ethics Policy prohibits officers and employees from engaging in bribery or other illegal activities as well as from providing or receiving entertainment or gifts of excessive value or the nature of which violates social norms, laws and regulations. In addition, the Standards of Business Conduct stipulate that the officers and employees of the Denka Group must comply with the anti-corruption laws of the countries and regions in which the Denka Group operates, including the Foreign Corrupt Practices Act in the United States, the Bribery Act 2010 in the United Kingdom, and the Unfair Competition Prevention Act in Japan, and prohibit them from engaging in any form of bribery, including bribery through a third party. Further, the Standards of Business Conduct require that officers and employees of the Denka Group limit entertainment and gifts to the extent that is legal and socially acceptable, and to select the best business partners for the company based on objective criteria rather than personal gain. Denka also alert ourselves about bribery when engaged in transaction overseas and entering a new field of business. Before entering into M&A proceedings, Denka conducts due diligence to ensure that there is no risk of corruption in the acquired company, and provides education at overseas subsidiaries. Our subsidiaries in Singapore have in place strict internal rules on providing or receiving gifts or entertainment in compliance with the laws and regulations of the country.


■ Response to anti-social forces, money laundering and other crimes

The Denka Group Ethics Policy strictly prohibits the provision of benefits to anti-social forces. In addition, the Standards of Business Conduct stipulate that Denka Group officers and employees must not have any relationship with anti-social forces, must respond resolutely to unreasonable demands, including legal action, and must not engage in or cooperate with criminal activities such as drug trafficking, terrorism, arms smuggling, fraud, or money laundering. Through the Denka Global Compliance Program, Denka educates officers and employees of the Denka Group at home and abroad about cutting ties with antisocial and criminal forces, including the prevention of bribery and money laundering. In addition to these measures, the Legal Department is working to stipulate anti-social force exclusion clauses and anti-corruption clauses in various contracts. In Japan, the Administrative Department is working together with outside lawyers, police authorities, and professional organizations to lead efforts to ensure that the Denka Group has no relationship with anti-social forces.

Policies

-  **Denka Group Vision**
<https://www.denka.co.jp/eng/vision/>
- Denka Group ESG Basic Policy**
https://denka_sustainability.disclosure.site/en/themes/727
- The Denka Group Human Rights Policy**
https://denka_sustainability.disclosure.site/en/themes/779
- CSR Procurement Policies and Guidelines**
https://denka_sustainability.disclosure.site/en/themes/732
- R&D Policy**
<https://www.denka.co.jp/eng/rd/strategy/>
- Publications on the Protection of Personal Information**
<https://www.denka.co.jp/eng/privacypolicy/>


E Environment

-  **Responsible Care (RC) Activity Policies (environment related)**
https://denka_sustainability.disclosure.site/en/themes/748
- Environmental Policy**
https://denka_sustainability.disclosure.site/en/themes/748
- Achieving carbon neutrality**
https://denka_sustainability.disclosure.site/en/themes/715
- The Denka Group's Policies on the Prevention of Environmental Pollution**
https://denka_sustainability.disclosure.site/en/themes/717


S Social

-  **Declaration of Health and Productivity Management**
https://denka_sustainability.disclosure.site/en/themes/757
- Work Style Reforms**
https://denka_sustainability.disclosure.site/en/themes/747
- Declaration of Partnership Building**
https://denka_sustainability.disclosure.site/en/themes/758
- Denka Group Social Contribution Policy**
https://denka_sustainability.disclosure.site/en/themes/719

G Corporate Governance

-  **Denka Corporate Governance Guideline**
<https://sustainability.cms-denka-sustainability-s3.s3-ap-northeast-1.amazonaws.com/pdf/en/2021/cgguideline.pdf>
- BCP (business continuity plan) policies**
https://denka_sustainability.disclosure.site/en/themes/704
- Basic policy on the development of internal control systems**
https://denka_sustainability.disclosure.site/en/themes/637
- Basic Strategy for Capital Policy**
<https://sustainability.cms-denka-sustainability-s3.s3-ap-northeast-1.amazonaws.com/pdf/en/2021/cgguideline.pdf>

Compliance · Corporate ethics

-  **Compliance Basic Policy**
https://denka_sustainability.disclosure.site/en/themes/675
- Basic Information Security Policy**
https://denka_sustainability.disclosure.site/en/themes/643
- Denka Group ICT Governance Policy**
https://denka_sustainability.disclosure.site/en/themes/675
- Denka Group Information Security Policy**
https://denka_sustainability.disclosure.site/en/themes/675
- Denka Group ICT System Usage Policy**
https://denka_sustainability.disclosure.site/en/themes/675
- Denka Group Secrecy Policy**
https://denka_sustainability.disclosure.site/en/themes/675
- Group Policy on Whistleblowing(Compliance Hotline Regulations)**
https://denka_sustainability.disclosure.site/en/themes/674

Prioritization of Safety

-  **Basic Policy for Workplace Safety, Health, Security and Disaster Prevention**
https://denka_sustainability.disclosure.site/en/themes/687

Improving product safety and quality

-  **The Denka Group's Quality Policy**
https://denka_sustainability.disclosure.site/en/themes/696

Initiatives

Signatory to the UN Global Compact


The Denka Group signed a petition expressing its endorsement of the United Nations Global Compact (UNGC) and was registered as a participating company on June 8, 2023. UNGC is the world's largest sustainability initiative that aims to build a sound global society through the collaboration among the United Nations and companies and organizations. Companies and organizations that sign the UNGC are required to support the 10 principles of human rights, labor, environment, and anti-corruption advocated by the UNGC, and strive to realize them through their business activities.

Denka has set forth the Denka Group ESG Basic Policy to address issues related to sustainability. In addition, the Company has promoted three growth strategies in its "Mission 2030" management plan: business value creation, human resources value creation, and management value creation. The Company is working to pursue sustainability in its business activities and strengthen its management foundation. By signing the UNGC, we will clarify our corporate stance toward the realization of a sustainable society and put the 10 principles advocated by the UNGC into practice in our business activities.

Our Support of the Task Force on Climate-Related Financial Disclosure (TCFD)

In September 2020, Denka announced its support of the TCFD and began participating in the TCFD Consortium.

Going forward, we will carry out ongoing assessments focused on risk and opportunities arising from climate change and other relevant factors, including changes in government policies, regulations and market conditions as well as technological breakthroughs in the course of across-the-board initiatives aimed at realizing the low-carbon society and decarbonized economy envisioned by the Paris Agreement.

 ESG information site Responding to the TCFD Recommendations
https://denka_sustainability.disclosure.site/en/themes/750

WIPO GREEN Approach to Environmental Issues

In July 2022, Denka participated as a partner in WIPO GREEN, a global platform for environment-related technology operated by the World Intellectual Property Organization (WIPO).

We are developing heat dissipation materials that contribute to energy saving and longer life by being used as heat countermeasures in automobiles such as xEVs and digital home appliances, and phosphor* materials that contribute to the spread of LEDs and play a role in reducing energy consumption. We have a variety of environment-related technologies, such as food packaging materials that reduce the amount of plastic used in pursuit of thinner, lighter weight products. We are leading the way in the development of flexible organic thermoelectric conversion elements and modules using conductive materials and have registered these technologies in the WIPO GREEN database.

<https://wipogreen.wipo.int/wipogreen-database/articles/146811>

Positioning environmental management at the core of our management, we focus not only on reducing CO₂ emissions within our company, but also on developing and providing products that contribute to the environment and technologies that reduce environmental impact. By participating in WIPO GREEN, we will create innovation through interaction with other partners who are interested in our environment-related products and technologies, and contribute to the decarbonization of society as a whole.

Going forward, we will continue to use the SDGs as our compass to do "what we can do better than anyone else to become a company that is irreplaceable to society and that helps create a world where everyone can live a better life."

 ESG information site Partner participation in WIPO GREEN
https://denka_sustainability.disclosure.site/en/themes/755

Participation in GX League


The GX League aims to promote discussion and practice for the creation of new markets in industry and government by a group of companies that will lead the transformation of the entire economic and social system, including stakeholders, to quickly transition to carbon neutrality. Denka has participated in this initiative since its full-scale launch in April 2023.

 ESG information site Participation in GX League
https://denka_sustainability.disclosure.site/en/themes/760

Participant in the Clean Ocean Material Alliance (CLOMA)

The Clean Ocean Materials Alliance (CLOMA), established in 2019, is an alliance of diverse companies to accelerate innovation in the prevention of marine pollution from plastic waste.

The Denka Group is actively developing and providing new solutions to reduce the global environmental impact and promote the efficient use of plastics, taking advantage of its strengths in integrated manufacturing facilities and product development capabilities ranging from synthetic resin materials to polymer processing and molding.

 ESG information site Initiatives to Counter the Plastic Waste Issue
https://denka_sustainability.disclosure.site/en/themes/680

Denka Report 2023 [Environmental](#)

Denka

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