

Teijin Group Global Environmental Charter

The Teijin Group defines its Global Environmental Charter in line with our corporate philosophy.

The Teijin Group Global Environmental Charter

To fulfill the Teijin Group's corporate philosophy "We place the highest priority on safety and the preservation of our natural environment" to ensure society's sustainable development, we will:

- 1.** Strive to promote efficient use of resources and energy and reduction of environmental impact to preserve the global environment.
- 2.** Provide products and services that reduce the environmental impact for society through progress in science and technology with a focus on global environmental consciousness.
- 3.** Participate in social activities aiming at conserving the global environment through education and raising awareness for group employees, and cooperation with local communities involved in our business activities.

(Established in December 1992; revised in July 2007)

Climate Change Initiatives (Disclosure Based on TCFD Recommendations)

In Medium-Term Management Plan 2020-2022, the Group has designated "climate change mitigation and adaptation" as an important issue (materiality). Accordingly, the Group is leveraging lightweight and energy-efficient technologies to contribute to the transition to a carbon-free society. At the same time, the Group is making efforts to reduce greenhouse gas emissions from its business activities.

We have also announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in March 2019. We promote information disclosure on climate change in line with it.

Governance

Under the guidance and supervision of the Board of Directors, the Teijin Group is making efforts to address climate change-related issues as part of its efforts toward sustainability and risk management, and has put the Chief Social Responsibility Officer (CSRO) in charge of these efforts. The direction, planning, and progress of the Group's climate change efforts are deliberated by the organizations mentioned on the right. The Board of Directors provides instruction on these efforts.

- Deliberations on basic plans and reports of their progress take place at the Total Risk Management (TRM) Committee. The details of these discussions are then reported to the Board of Directors (twice a year).
- The CSRO reports the performance status of their duties to the Board of Directors (once a year).

[Corporate Governance >](#)

Strategy

Risks and opportunities related to climate change

When formulating the medium-term management plan, we analyzed opportunities and risks by referencing the SDGs and considering our vision for the Group in 2030 and then thinking in reverse on how to achieve that vision.

We view climate change mitigation as a business opportunity and are providing Environmental Value Solutions centered on the transition to lightweight, highly durable mobility realized through high-performance and high-value-added materials.

For climate change adaptation, we are offering Safety, Security, and Disaster Mitigation Solutions, which help reduce damage and facilitate a prompt recovery in the event of a natural disaster, through infrastructure reinforcement materials that make use of high-performance materials and technologies and services in the IT and healthcare domains.

Meanwhile, in an effort to reduce the impact our business activities have on the global environment, we are phasing out coal-fired thermal power while promoting energy conservation and renewable energy and pursuing process innovation and other types of technological innovation.

In addition, we analyzed the impact of climate change-related transition risks and physical risks on our operations from the three perspectives listed below. Based on this analysis, we have established long-term environmental targets and are making efforts to reduce our CO₂ emissions accordingly.

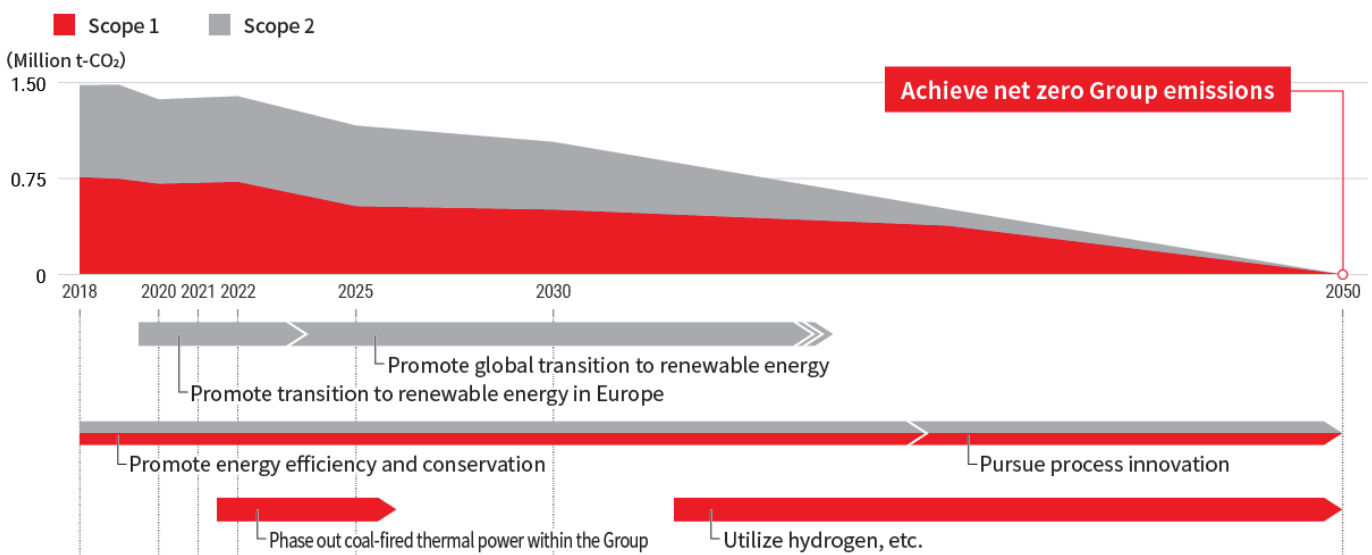
Climate change-related opportunities and risks

Category	Major opportunities	Time frame	Major initiatives
Opportunities concerning products and services	<ul style="list-style-type: none"> Increase in profits through the provision of solutions that contribute to "climate change mitigation and adaptation" 	Short term-long term	<ul style="list-style-type: none"> Provision of Environmental Value Solutions that leverage lightweight and energy-efficient technologies
Opportunities concerning resilience		Short term-long term	<ul style="list-style-type: none"> Provision of Safety, Security, and Disaster Mitigation Solutions that help reduce damage and facilitate a prompt recovery in the event of a natural disaster

Category		Major risks	Time frame	Major initiatives
Transitional risks	Policies and legal regulation	<ul style="list-style-type: none"> • Increase in costs due to the introduction of a carbon tax, EU Emissions Trading Scheme, etc. 	Short term-long term	<ul style="list-style-type: none"> • Monitoring of trends in various policies and regulations • Introduction of internal carbon pricing system targeting capital expenditures that can lead to an increase/decrease in CO₂ emissions
	Market and reputation	<ul style="list-style-type: none"> • Decrease in corporate value and worsening of reputation due to an increase in Group CO₂ emissions 	Medium term-long term	<ul style="list-style-type: none"> • Management of CO₂ emissions of Group companies both in Japan and overseas, including affiliated companies • Formulation of road map for achieving long-term environmental targets
Physical risks	Acute and chronic risks	<ul style="list-style-type: none"> • Suspension of business activities as a result of climate change, including increased intensity of natural disasters such as typhoons and floods, long-term temperature increases, and rising sea levels 	Short term-long term	<ul style="list-style-type: none"> • Regular review of BCP and implementation of various disaster prevention drills

Roadmap for reducing Group CO₂ emissions (scope 1 + 2)

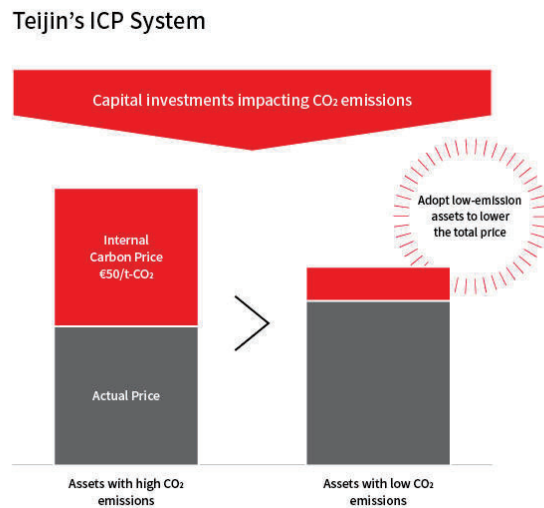
The Teijin Group seeks to achieve net zero CO₂ emissions by 2050 through the early phase-out of all coal-fired power generation facilities and a transition to renewable energy sources for electricity.



Introduction of internal carbon pricing system*

In FY2020, the Teijin Group established and introduced an internal carbon pricing (ICP) system* targeting capital expenditure plans throughout the Group that can lead to an increase or decrease in CO₂ emissions. In FY2021, we began applying this ICP system to our capital expenditures. Under this system, we apply a uniform internal carbon price (€50/t-CO₂) Groupwide and globally, thereby quantifying CO₂ emissions as costs that we can consider when making investment decisions. Through the launch of this system, we will promote capital expenditure plans that help reduce CO₂ emissions with the aim of achieving our long-term goals for CO₂ emission reduction and to prepare the Company for expected future rises in global carbon prices.

* A system that creates economic incentives to reduce CO₂ emissions by establishing internal carbon prices to quantify CO₂ emissions as costs, thereby promoting internal efforts to respond to climate change



Materiality and KPIs >

Scenario analysis related to climate-change

After identifying businesses and industries that have the potential to be significantly impacted by climate change, the Teijin Group has been conducting an analysis of the level of this impact based on the 2°C scenario and the 4°C scenario,* referencing World Energy Outlook (WEO), published by the International Energy Agency (IEA).

* 2°C scenario: IEA WEO Sustainable Development Scenario/IEA WEO 450; 4°C scenario: IEA WEO Stated Policies Scenario

In FY2020, we reviewed our base scenario in light of the changing trends in the aircraft industry due to the COVID-19 pandemic and revised our plans for profits in the carbon fibers business following the delayed growth in demand for carbon fiber intermediate materials for aircraft. Going forward, we will continue to closely monitor trends as we examine appropriate investment timing and resource allocation.

We are once again conducting scenario analysis as we formulate the next medium-term management plan. In addition, we are examining specific measures to enact during the period of the next plan so that we are able to adhere to our road map for CO₂ reductions.

Reducing CO₂ emissions in logistics

In FY2021 CO₂ emissions in logistics amounted to 6.52 thousand tons★, up 0.64 thousand tons from FY2020.

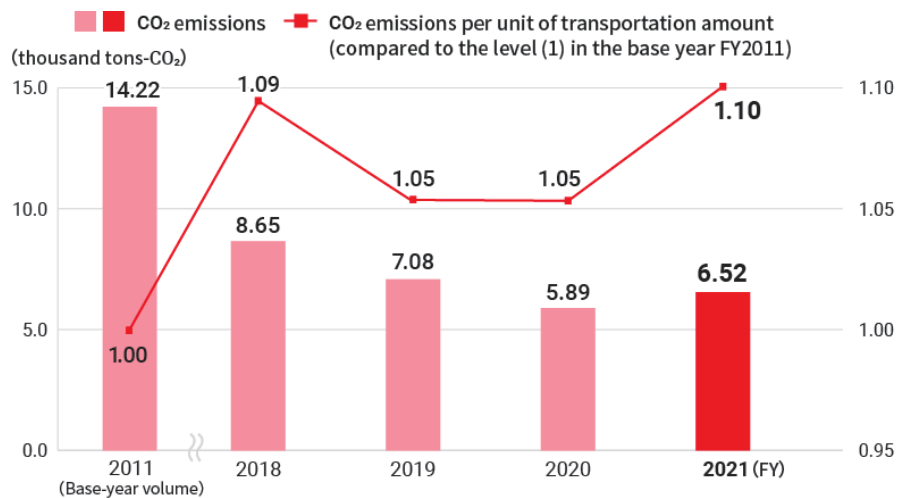
In FY2021, following economic recovery despite the impact of COVID-19, the overall volume of freight transportation increased (up by 5.3 thousand t-km/year).

As an ongoing measure to reduce the environmental load, in FY2021 we also improved our truck loading rate and implemented a modal shift (utilizing Japan Railway transportation and shipping). However, due to an increase in drayage distances caused by logistics disruptions and an increase in light-duty truck transportation, CO₂ emissions increased compared with the previous year.

As a result, in the entire Group's logistics, CO₂ emissions per unit of transportation increased 0.004 compared with the previous year. The standard basic unit per 1,000 t-km (tons-CO₂/1,000 t-km) was 1.10★ (against 1 in FY2011).

In FY2022, in addition to shortening the drayage distance by changing the point of discharge and container round use, we will continue our efforts to lower emissions per unit by increasing vehicle size (expanding bulk transportation), improving the truck loading rate, and promoting a modal shift.

Trends in CO₂ Emissions in logistics and CO₂ Emissions per unit of transportation amount ★



* The scopes for calculating CO₂ emitted by logistics for each fiscal year are as follows.

FY2011: Teijin Limited (excluding the aramid fiber business), Teijin Film Solutions Ltd., and the former Teijin Fiber Co., Ltd.'s apparel business that was consolidated with Teijin Frontier Co., Ltd.

FY2017: Teijin Limited, Teijin Film Solutions Ltd., Teijin Frontier Co., Ltd., Teijin Pharma Limited, Toho Tenax Co., Ltd., Teijin Cordley Limited, and Teijin Engineering Ltd.

FY2018 and FY2019: Teijin Limited, Teijin Film Solutions Ltd., Teijin Frontier Co., Ltd., Teijin Pharma Limited, Teijin Cordley Limited, and Teijin Engineering Ltd. (*)In FY2018, the former Toho Tenax was transferred and integrated into Teijin Limited.

FY2020: Teijin Limited, Teijin Frontier Co., Ltd., Teijin Pharma Limited, and Teijin Cordley Limited (*)Teijin Film Solutions Ltd. and Teijin Engineering Ltd. are not included.

FY2021: Teijin Limited, Teijin Frontier Co., Ltd., Teijin Pharma Limited, and Teijin Cordley Limited (*)Teijin Engineering Ltd. are not included.

Sustainability

Management of Water Resources

In response to the increasingly critical water shortages and water pollution worldwide, the Teijin Group is endeavoring to reduce water consumption at business sites bearing in mind water-related risks, while promoting the efficient use of water resources.

Management of Water Resources

The Group's targets (KPIs) for FY2030

By FY2030 improve the freshwater intake volume per sales unit by 30% compared with FY2018.

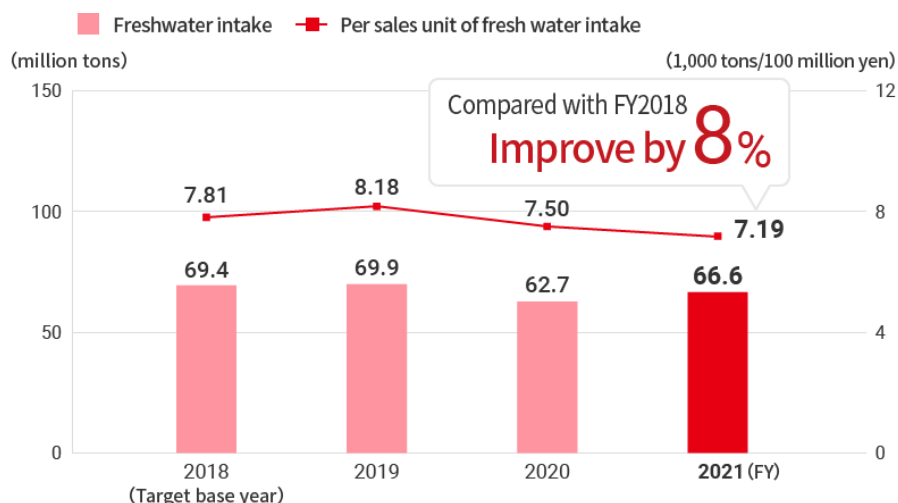
We are expanding the number of products that use less water during the production process and are using water efficiently in our business activities.

In these ways, we aim to achieve our targets for reducing the amount of freshwater intake with a focus on curtailing water use at manufacturing sites and other locations that use high volumes of water.

In fiscal 2021, the freshwater intake volume increased 6% compared with the previous fiscal year, to 66.6 million tons★, as production activities recovered from the impact of the COVID-19 pandemic.

However, this result still constituted a 4% improvement in per sales unit compared with the previous fiscal year due to efforts to curtail water use at the Matsuyama Factory.

Trends in freshwater intake volume and volume per sales unit★



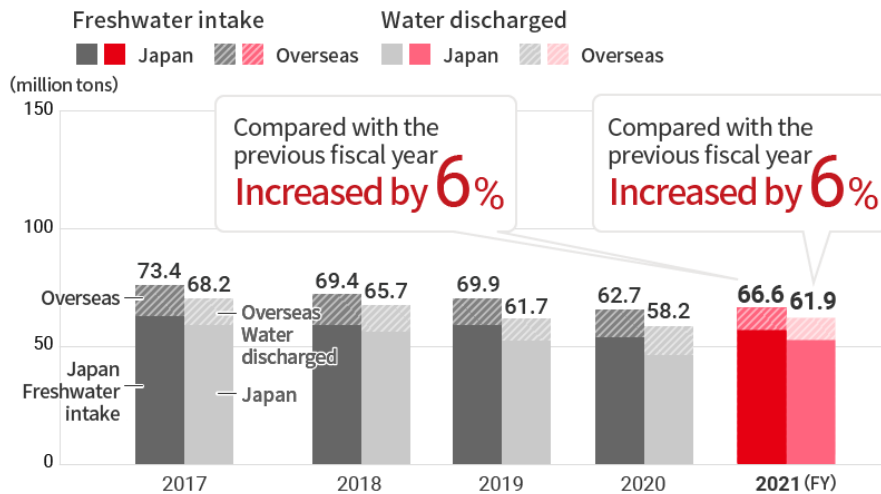
* The per sales unit has been assured since FY2021, and calculated by using consolidated net sales as the denominator.

Environmental Load due to Wastewater

In FY2021, wastewater volume increased by 6% year-on-year to 61.9 million tons ★ due to recovery in production as a result of decrease in the impact of COVID-19.

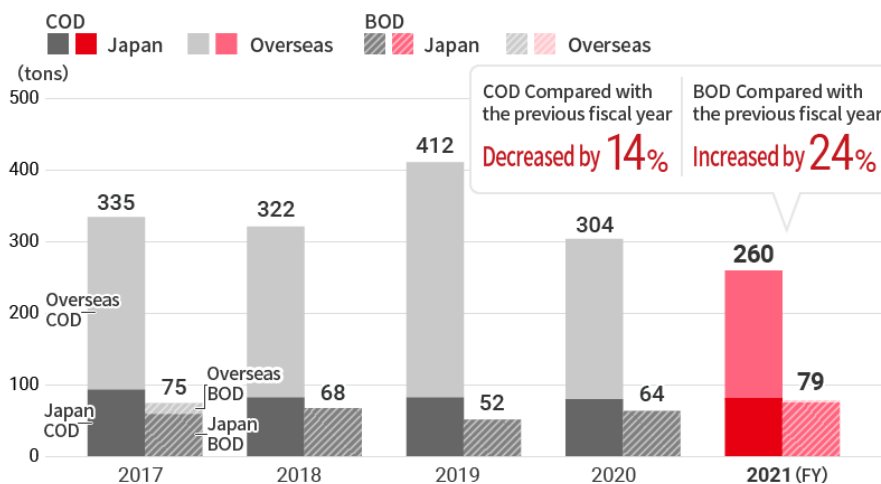
In addition, due to activities such as reduction of water usage for washing at dyeing factories, chemical oxygen demand (COD) decreased by 14% year-on-year to 260 tons ★, bio-chemical oxygen demand (BOD) increased by 24% year-on-year to 79 tons ★.

Trends in freshwater intake and water discharged ★



* The amount of freshwater intake is the total of industrial water, groundwater, and tap water.

Trends in COD and BOD ★



* The tally covers wastewater discharged in rivers, sea areas, and lakes.

* Until FY2021, COD values were used for sites measuring both COD and BOD values, but from FY2021, COD values have been tabulated for discharge into sea areas and lakes, and BOD values are aggregated for discharge into rivers.

Water Risk Measures

The Teijin Group uses the Aqueduct water risk assessment tool of the World Resources Institute to analyze risks at manufacturing sites. At the present point in time, there are no sites harboring serious risks, but at sites in regions where there are concerns that water usage might be limited, we are adopting measures such as creating projects to reduce usage in the product cleaning process.

Reducing Hazardous Substance Emissions

We are working to systematically reduce emissions of hazardous chemical substances associated with our business activities and committ to preventing environmental pollution.

Reducing Emissions of Hazardous Chemical Substances^{*1}

The Group's targets (KPIs) for FY2030

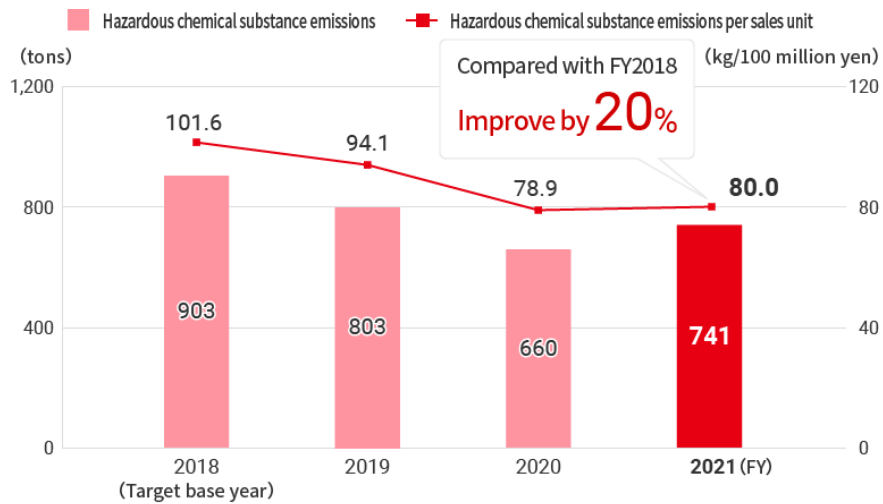
By 2030, improve the hazardous chemical substances emissions per sales unit by 20% compared to FY2018

We are working to reduce emissions of hazardous chemical substances through ongoing efforts to prevent leaks of such substances and the transition to processes that create less emissions.

In fiscal 2021, our hazardous chemical substance emissions increased 12% compared with the previous fiscal year, to 741 tons★, due to such factors as problems with capturing emissions from certain processes and the recovery in production activities from the impact of the COVID-19 pandemic, amounting to a worsening of 1% in per sales unit compared with the previous fiscal year. However, this result still constituted a 15% improvement compared with fiscal 2019, prior to the pandemic.

^{*1}Among the Class 1 designated chemical substances under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and chemical substances indicated by the Japan Chemical Industry Association, chemical substances harmful to aquatic environments and the ozone layer in the GHS (Globally Harmonized System of Classification and Labelling of Chemicals) classification defined by the United Nations are subject to the calculation of atmospheric, water, and soil emissions.

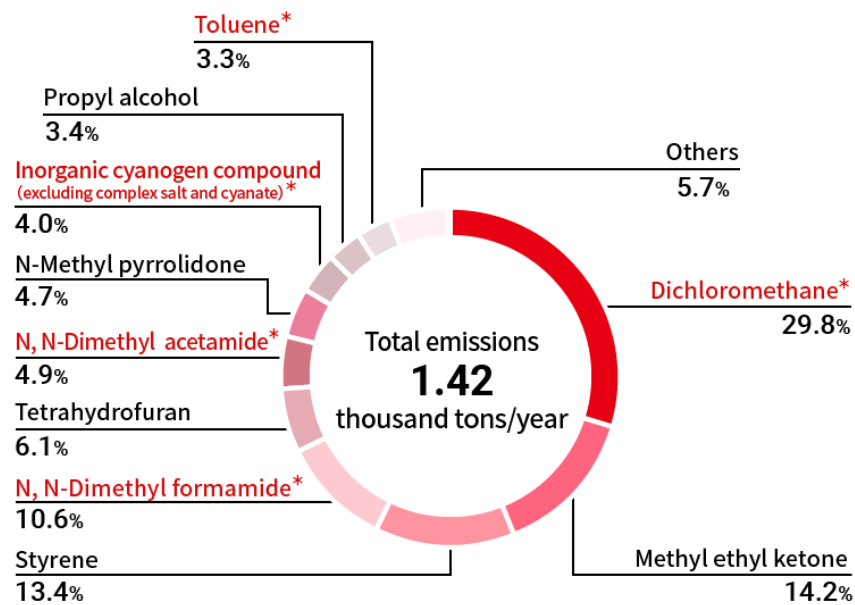
Trends in emissions of hazardous chemical substances and emissions per sales unit ★



*1 Among the Class 1 designated chemical substances under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and chemical substances indicated by the Japan Chemical Industry Association, chemical substances harmful to aquatic environments and the ozone layer in the GHS (Globally Harmonized System of Classification and Labelling of Chemicals) classification defined by the United Nations are subject to the calculation of atmospheric, water, and soil emissions.

*2 The per sales unit has been assured since FY2021, and calculated by using consolidated net sales as the denominator.

Top 10 chemical substance emissions ★



* Red text denotes chemical substances specified as Class 1 in the Chemical Substances Management Law.

