

Biodiversity

Reducing Emissions and Preventing Pollution

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Our Basic Approach and Strategy

Unicharm recognizes its tremendous responsibility as a company that provides consumer goods essential for hygienic lifestyles, and we make efforts to minimize impacts on biodiversity at each stage of the product life cycle, from raw materials procurement to development, manufacturing, logistics, usage, and disposal, while protecting biodiversity around our factories by reducing emissions and preventing pollution.

Certified as a Ministry of the Environment Re-Style Partner Company (Japan)

Unicharm was certified as a Re-Style Partner Company by the Ministry of the Environment for promoting initiatives aimed at building a recycling-based society. We continue to promote the 3Rs (reduce, reuse, recycle) among consumers such as by our participation in the MOE-sponsored Let's Choose! 3R Campaign.



Risks and Opportunities

Risks

If we fail to dispose of emissions properly or violate laws and regulations, there is a risk we will be subject to penalties, such as suspension of operations orders from the government and other authorities. We also assume reputational risks, such as wholesalers, retailers, and other distributors suspending the handling of Unicharm products or consumers refraining from purchases due to bad publicity. There is also a risk of health hazards to employees, their families, and local residents who work at or live near business sites that generate environmental pollution. Depending on the location of the business site and its surroundings, the

impact from pollution could be widespread and include ground-water and atmospheric contamination.

We recognize that in the event of such pollution, there is a risk Unicharm will incur large financial burdens related to restoring the environment to its original condition and providing compensation in line with health hazards.

Opportunities

Unicharm takes appropriate measures centered on production sites to prevent air, water, soil, and other types of pollution. Specifically, these measures include the reporting, measurement, and management of environment-related indicators as determined by governments in each country and region. We believe that by disclosing this information, we are able to gain the trust of our stakeholders. We also believe that steadfast efforts and appropriate information disclosure will increase this trust, making it easier for consumers to choose the products and services Unicharm offers.

Furthermore, we believe our efforts to recycle used disposable diapers are recognized for their contribution to reducing emissions, thereby increasing the likelihood that our products will be selected in support of these efforts.

Management Structure

Plans and progress on important matters related to reducing emissions and preventing pollution are shared at ESG Committee meetings held four times a year and chaired by the president & CEO, and upon approval from the Board of Directors, a PDCA cycle is implemented toward the achievement of targets.

We also verify the management of temporary industrial waste storage facilities and processors and measure emissions and wastewater in order to minimize the impact on biodiversity in the areas surrounding our manufacturing facilities.

P.023 Environmental Management Structure
P.009 Sustainability Promotion System

Environmental Audits

Regarding emissions reductions and pollution prevention, activities and controls are implemented in accordance with environmental laws and regulations and ISO 14001. Three types of environmental audits are implemented to maintain and improve the level and performance of activities and controls:

- (1) Regular audits in conformance with ISO 14001,
- (2) On-site audits at industrial waste processing partners to confirm appropriate practices, and
- (3) Audits for specific purposes, including confirmation of legal compliance.

Indicators and Targets

With regard to reducing emissions, we have set and are promoting targets with a particular focus on addressing the problem of plastic waste. In terms of preventing pollution, we aim to achieve zero violations of environmental laws and regulations at each of our factories.

Responding to the Problem of Plastic Waste Under Environmental Targets 2030

Implementation Items		Base Year	Fiscal 2021 Results	Fiscal 2022 Results	Fiscal 2023 Targets	Fiscal 2023 Results	Fiscal 2024 Targets	2030 Targets	2050 Vision
Reducing usage of plastic in packaging materials	Per unit of sales	2019*1	-0.2%	-12.3%	-14.0%	-18.4%	-21.1%	-30%	Realizing a new society with zero plastic waste
Selling products that do not contain petroleum-derived plastic	—	—	Development ongoing	Development ongoing	Development ongoing	Development ongoing	Development ongoing	10 or more stock-keeping units (SKUs) sold	
Raising awareness about proper disposal of used products	—	—	38% (6 countries and regions)	50% (8 countries and regions)	56% (9 countries and regions)	56% (9 countries and regions)	63% (10 countries and regions)	Rolled out at all Group companies	
Eliminating the use of plastic in sales promotional items	—	2019	-8.9% (Japan)	-81.8% (Japan)	-30.0%	-86.9% (Japan) -76.5% (China)	-88.8% (Japan) -79.9% (China)	In principle, reduced to zero at all Group companies	

*1 We have updated our base year from fiscal 2016 to fiscal 2019 following a review in fiscal 2020.

P.027 Plastic Waste Reduction Measures

Initiatives and Results

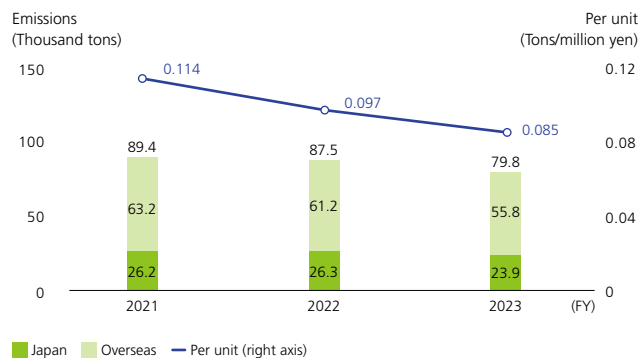
Reducing Emissions

Disposing of Emissions from Our Factories

Unicharm strives to minimize emissions by reducing product loss and recycling trim through improved manufacturing techniques. For emissions that are unavoidably generated from our factories, we look for and consign disposal for recycling to waste processors that have minimal impacts on biodiversity and the global environment from the perspective of the 3Rs (reduce, reuse, recycle). When selecting waste disposal contractors, we visit the site to verify how emissions are handled.

In fiscal 2023, emissions amounted to 79.8 thousand tons, a decrease of approximately 8 thousand tons from fiscal 2022. This is an approximately 12.4% reduction on a per unit of sales basis.

Emissions Generated



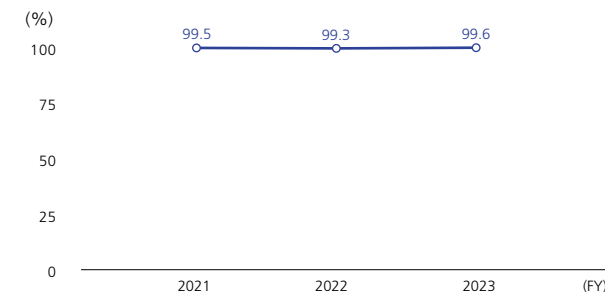
P.064 Environmental Data > Emissions Generated

Promotion of Recycling at Production Sites

Unicharm promotes the recycling of product waste and trim at production sites throughout the Group. In 2023, we attained a recycling rate of 99.6% at our production sites (four main factories) in Japan while maintaining a final landfill disposal rate of less than 1%, thereby achieving our target of zero landfill emissions at these sites for the 16th consecutive year. At production

sites overseas, our subsidiary in Thailand has adopted use of equipment that dismantles and recycles products not meeting specifications from the production process. In conjunction with our recycling efforts in Japan, we have achieved zero landfill waste at our production sites overseas.

Recycling Rate (Japan)*2



*2 Figures indicate the material and thermal recycling rates at Unicharm's four main production sites in Japan: Unicharm Products Co., Ltd.'s Fukushima Factory, Shizuoka Factory, Shikoku Factory, and Kyushu Factory (the incinerator at the Fukushima Factory was in operation until fiscal 2022).

P.064 Environmental Data > Recycling Rate

• **Secondary Uses of Product Waste**

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Unicharm’s pet care product production subsidiaries Peparlet Co., Ltd. and Kinsei Products Co., Ltd. promote emissions reductions by making secondary use of Groupwide product waste as raw materials for *Paper-sand*® cat continence care products. In 2023, approximately 13 thousand tons of waste was reused as raw material.

Furthermore, the construction of a new factory in Shimada City, Shizuoka Prefecture, was completed in October 2023 to consolidate Peparlet bases around the Fujieda region of Shizuoka Prefecture. This new factory will improve production and logistics efficiency and promote the reuse of process waste and other materials generated at Group production sites in Japan and overseas, thereby reducing emissions.

• **Reusing Paper Tubes from Rolled Materials (Japan)**

At production sites in Japan, paper tubes (the paper cores of rolled materials), which were previously thermally recycled, are now returned to suppliers for reuse.

• **Recycling Plastic Waste Generated During the Manufacturing Process for Use in Packaging (Japan)**

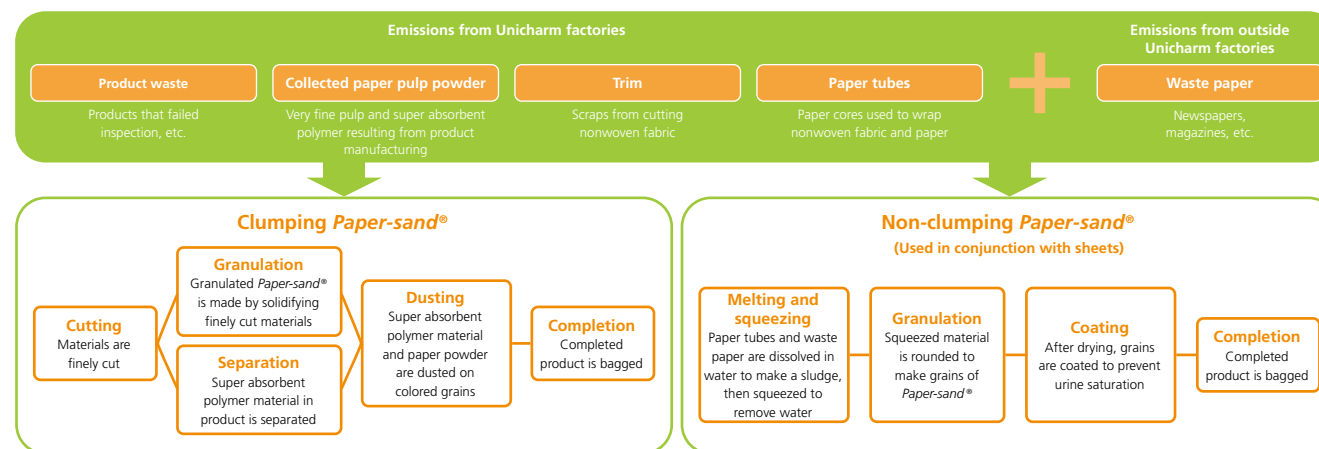
Unicharm recycles plastic materials generated at factories for use in product packaging.

P.029 Recycling Trimmings Generated in the Manufacturing Process for Use in Packaging

• **Industry Efforts to Reduce Pet Food Loss**

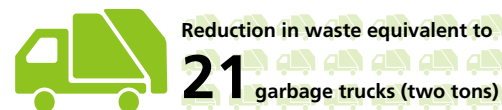
Unicharm endorses the Pet Life Support Project implemented by the Japan Pet Food Association and the Japan Pet Food & Suppliers Wholesalers Association with support from the Ministry of the Environment. This project facilitates a system to manage information registered by supporting manufacturers on pet food nearing its expiration date, and provides it free of charge to animal shelters upon request. Through this activity, we aim to reduce pet food loss throughout the industry and contribute to animal welfare by saving the lives of shelter dogs and cats and supporting their transfer to new foster homes.

▶ **Manufacturing Process of Paper-sand® Incorporating Secondary Use of Product Waste**



• **Reducing Waste Through the Recycling of Used Disposable Diapers (Japan)**

Since 2015, Unicharm has conducted demonstration trials involving the recycling of used disposable diapers. In June 2022, select nursing care facilities in Kagoshima Prefecture began using disposable diapers that use recycled materials as part of their absorbent paper, realizing the horizontal recycling of used disposable diapers. In our recycling system, collected diapers are washed and separated, then undergo a unique ozone treatment to sterilize and recycle the extracted pulp, making it equivalent to unused raw materials in terms of hygiene, safety, and use. Furthermore, we learned that 100 used adult disposable diapers recycled over a one-year period could reduce waste equivalent to 21 garbage trucks (two tons).*



* Based on Unicharm research, March 2024

Preventing Pollution

Unicharm is promoting measures to manage chemical substances and control the emission of hazardous chemical substances from its factories by considering their impact on people and ecosystems. We have formulated guidelines and a dedicated department investigates toxicity and legal compliance.

Hazardous Waste

• **Polychlorinated Biphenyl (PCB) (Japan)**

One unit of low-concentration PCB-contaminated equipment was discovered at the Itami Factory, but it was properly disposed of and there are currently none in storage.

P.064 Environmental Data > Polychlorinated Biphenyl (PCB) Storage Situation (Japan)

• **Substances Subject to the Pollutant Release and Transfer Register (PRTR) (Japan)**

With regard to toluene, Unicharm is gradually shifting to the use of toluene-free thinner.

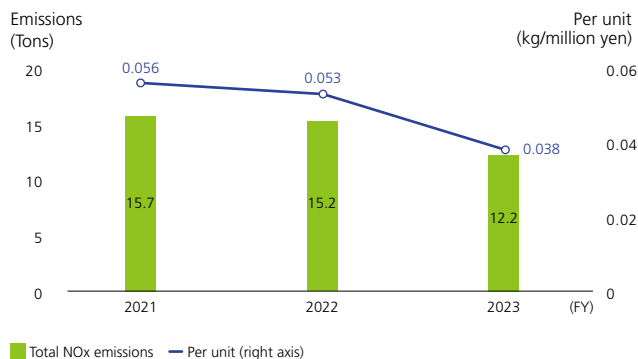
P.064 Environmental Data > Pollutant Release and Transfer Register (PRTR) Substances (Japan)

Air Pollution Countermeasures

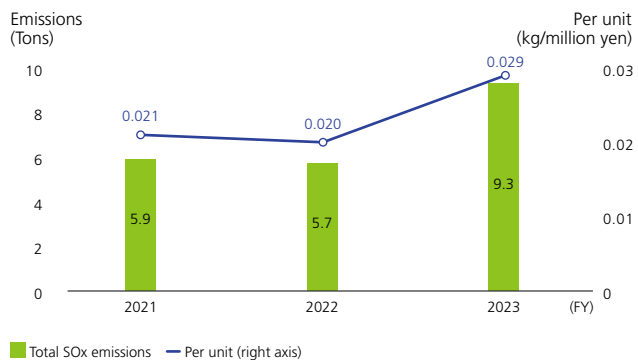
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To counter air pollution, we are working to reduce nitrogen oxide (NOx) and sulfur oxide (SOx) emissions, which we are required to measure, by improving the operational efficiency of boilers and other equipment.

NOx Emissions (Japan)



SOx Emissions (Japan)



P.064 Environmental Data > NOx and Sox Emissions (Japan)

Protection of the Ozone Layer (Japan)

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We manage CFCs in compliance with laws and regulations and conduct regular inspections in an effort to protect the ozone layer.

P.065 Environmental Data > Ozone-Depleting Substances (Japan)

Preventing Water Pollution, Soil Contamination, and Offensive Odors

Wastewater is discharged after measuring biochemical oxygen demand (BOD), chemical oxygen demand (COD), and other parameters in accordance with laws and regulations established by the governments of each country and region, after undergoing treatment in accordance with wastewater treatment standards. We strive to prevent pollution by setting and adhering to strict voluntary standards exceeding the standards of the Water Pollution Control Law and Law Concerning Special Measures for Conservation of the Environment of Seto Inland Sea in Japan, and the Water Pollution Prevention and Control Law of the People's Republic of China. In fiscal 2023, there were no violations of any laws, regulations, or voluntary standards, and the applicable factories properly reported to the government as required by laws and regulations.

Furthermore, to prevent soil contamination and offensive odors, we also conduct regular measurements according to in-house standards, and in fiscal 2023, there were no accidents associated with soil contamination or offensive odors.

P.065 Environmental Data > Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) (Japan)

Promoting Awareness of Proper Methods for Disposing of Products After Use

Waste disposal methods vary between countries and regions, and in some countries and regions where Unicharm provides its products, it remains common practice to bury disposable diapers in the ground or discard them in the river. For this reason, we educate customers on proper disposal methods through our product packaging. We also conduct environmental awareness classes for children in Indonesia and Thailand to educate them about waste separation and proper disposal methods. We believe these efforts will help protect rivers as water sources, and other ecosystems.

P.031 Raising Awareness About Proper Disposal of Used Products

Participating in the SPOGOMI World Cup 2023 (Vietnam)

In April 2023, three employees from Unicharm's local subsidiary in Vietnam participated in the SPOGOMI World Cup 2023 qualifying tournament. This event, which originated in Japan and combines elements of sports with trash pickup, was held at the Ho Chi Minh City University of Technology, where approximately 1.5 kg of trash was collected in one hour.



Cleanup Activities (Malaysia)

In November 2023, at Unicharm's local subsidiary in Malaysia, cleanup activities were conducted to protect the marine environment and ecosystem. 74 employees and their families and friends participated in this event, removing plastic bags, plastic bottles, glass, fishing nets, cigarette butts, and other trash along Kelanang beach and canal.

