



## Key Initiatives

## Safeguarding the well-being of our planet

**Our aim is to provide products and services that are sanitary and convenient, as well as to contribute to activities that improve our planet's environment.**

### Our Basic Approach and Strategy

Reducing impact on the global environment is becoming extremely pressing and companies are playing an increasingly important role in making a sustainable society a reality. Unicharm recognizes that "safeguarding the well-being of our planet" is imperative to the sustainable development of its business. With this in mind, we have declared, in detail, our environmental targets in Kyo-sei Life Vision 2030 and Environmental Targets 2030 and are working to achieve them through a Groupwide effort. By way of the hygienic and convenient products and services it provides, Unicharm aims to innovate new solutions for protecting and supporting the global environment.

### 2022 Results

Unicharm is working to reduce CO<sub>2</sub> emissions across the entire value chain, from the procurement of raw materials to production and disposal. In terms of addressing climate change (one of our key initiatives for safeguarding the well-being of our planet), because the majority of the CO<sub>2</sub> emissions generated directly from our business are classified as Scope 2 (electricity used in manufacturing, etc.), we have declared it a goal to convert to renewable energy\* for 100% of the electricity used in our business activities by 2030 and are making steady strides to that end. In 2022, 11.0% of our Group's energy use was in the form of renewable electricity, contributing to reductions of roughly 30,000 tons in CO<sub>2</sub> emissions. With respect to the development of eco-friendly products and expanding our line of recycling models (two of our other key initiatives for safeguarding the well-being of our planet), we continued to forge ahead with the recycling of used disposable diapers, an area in which we have been developing new technologies and conducting demonstration trials since 2015. Also, in June 2022 we began testing the use of *Lifree* disposable adult diapers, which use recycled materials as part of the absorbent paper, at nursing care facilities in Kagoshima Prefecture. As for reducing the amount of plastic materials used, in addition to designing slimmed-down products, we are developing products made from plant-derived materials, adopting thinner packaging made of paper, and switching to the use of paper materials for sales promotional items, through which we are reducing the use of petroleum-derived plastics.

\* Electricity generated from natural energy sources such as wind power, solar power, biomass, and small-scale hydropower

## Addressing Climate Change

### Background of Initiatives

With the effects of climate change increasing year after year, Unicharm recognizes that reducing CO<sub>2</sub> emissions is of the highest priority for addressing environmental issues. Therefore, to contribute to achieving the 2°C scenario outlined in the Paris Agreement, we received certification in June 2018 for our CO<sub>2</sub> reduction plans up to 2045 under the Science Based Targets initiative (SBTi). Currently, we are considering the adoption of the 1.5°C target.

### Key Initiatives / Case Studies

#### Shifting to Renewable Electricity

**Japan** In 2022, we converted to renewable electricity using FIT Non-Fossil Certificate With Tracking\* at five factories, including the Saitama Factory in March and the Mie Factory and three factories of Peparlet Co., Ltd., in Shizuoka Prefecture in April. As a result, virtually all of the energy used at these five factories (approximately 22 million kilowatts) will be in the form of renewable electricity, which will lead to reductions of roughly 9,500 tons in CO<sub>2</sub> emissions per year.

**China** In April 2022, our local subsidiary in China commenced solar power generation at the Tianjin Factory and the Jiangsu Factory. As a result, roughly 25% of the energy used at these factories will be in the form of renewable electricity, which we expect will lead to reductions of around 9,300 tons in CO<sub>2</sub> emissions per year.



**Indonesia** In July 2022, our local subsidiary in Indonesia completed the first phase of installations of solar power generators at the Karawang Factory and commenced power generation. As a result, around 11% of the energy used at this factory will be in the form of renewable electricity, which we expect will lead to reductions of around 7,200 tons in CO<sub>2</sub> emissions per year.



\* Non-fossil certificates that separate the non-fossil value of electricity generated from non-fossil sources, derived from solar, wind, hydroelectric, geothermal, biomass, and other renewable energy sources

P.047 Transition to Renewable Electricity

## Development of Eco-Friendly Products / Expanding Our Line of Recycled Models

301-2, 301-3, 306-2

### Background of Initiatives

With the advent of Japan's super-aged society, the use of disposable diapers continues to increase and in 2030 used disposable diapers are expected to account for around 7% of total household waste by weight. In March 2020, the Ministry of the Environment disclosed the Guidelines for the Recycling of Used Disposable Diapers, bringing attention to the matter of diaper recycling. We view efforts to reduce waste incineration costs and CO<sub>2</sub> emissions and make effective use of resources as the "responsibility of disposable diaper manufacturers"; therefore, we began to recycle used disposable diapers in 2015 and are working on technology development and demonstration trials.

### Key Initiatives / Case Studies

#### Our Own Unique Recycling System for Used Disposable Diapers (Japan)

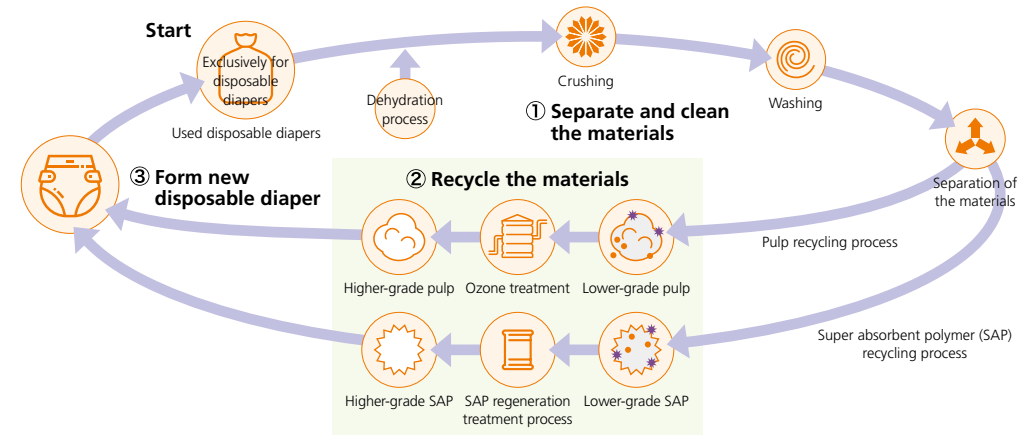
As the first phase of our Recycle for the Future (ReFF) Project, which aims to create a new future through recycling, we are proceeding with the operation of our horizontal recycling system. Through this system, used disposable diapers are collected and recycled by washing and separating them, after which the pulp taken out undergoes a unique ozone treatment process to kill the bacteria contained in the excrement, making it as hygienic and safe as virgin pulp.

As a part of this project, we conducted demonstration trials with Shibushi City and Osaki Town of Kagoshima Prefecture and, in June 2022, began testing the use of *Lifree* disposable adult diapers, which use recycled materials as part of the absorbent paper, at nursing care facilities in Kagoshima Prefecture. Our goal is to develop a recycling model that can be deployed not only in Japan but also overseas and implement it at over 10 municipalities by 2030.

**web** Notes for reflecting on the future of Unicharm's disposable diapers (in Japanese only)  
[https://note.com/unicharm\\_ref](https://note.com/unicharm_ref)



### ► Recycling of used disposable diapers



### ► Comparison between incineration and recycling of disposable adult diapers used by 100 people per year



Based on research by Unicharm

By expanding opportunities to enable as many people as possible to take part in the ReFF Project, we hope to realize a future where the recycling of disposable diapers is a common practice in daily life. Therefore, in November 2022 we held a special class for fifth-grade students at Shibushi Elementary School in Shibushi City, Kagoshima Prefecture, in the hope that these children, who are the future of our society, would learn about the world's most advanced recycling technology and be inspired to think about the effective use of resources. In the special class, students were introduced to a technology for recycling used disposable diapers and took part in an arts and crafts workshop where they used paper clay made from pulp that was extracted and recycled from used diapers. Through this event, students were able to learn about the quality, safety, and environmental friendliness of pulp recycled from used diapers.



Special class in session



Works of fifth-grade students using paper clay made from recycled pulp

## Reduction of the Amount of Plastic Materials Used

### Background of Initiatives

Because marine plastic waste is not biodegradable, it remains in the ocean for long periods of time and poses various impacts on the natural environment and biodiversity. At Unicharm, we are committed to realizing a sustainable circular economy and fulfilling our responsibilities as a manufacturer that uses plastics. To these ends, in May 2022 Unicharm participated in the Plastic Circular Challenge 2025, organized by the World Wide Fund for Nature (WWF) Japan. In addition to our goal of reducing plastic use as set forth in Kyo-sei Life Vision 2030 and Environmental Targets 2030, we established the goal of reducing the amount of plastic used in sales promotional items by 50% compared with 2019 levels by 2025, accelerating our measures to reduce plastic waste.

**P.041** Our Commitment to Reducing Plastic Use through Participation in Plastic Circular Challenge 2025

### Key Initiatives / Case Studies

#### CHARM Herbal Ansept+ Bio (Indonesia)

Since 2021, our local subsidiary in Indonesia has continued to introduce new environmentally friendly products in conjunction with World Environment Day. These products include *CHARM Herbal Ansept+ Bio*, sanitary pads made from materials containing biomaterials\* that were released for a limited time in 2022. For this product, we use biomaterials made from sugarcane pomace, which would otherwise be discarded, on the top sheet that makes contact with the skin, the backsheet film that comes into contact with the underwear, and the individual wrapping and packaging. Through the release of such products, Unicharm is reducing the use of petroleum-derived plastics and urging consumers in Indonesia to contribute to reductions in plastic waste.

\* Materials that use biomass plastic for a portion of their plastic components

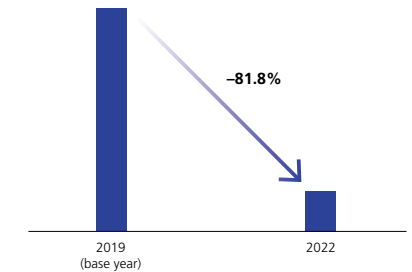


### Reducing Plastic Use in Sales Promotional Items (Worldwide)

Unicharm is promoting the use of less plastic for not only its products and packaging but also the sales promotional items used for retail product displays. We have declared the goal of reducing the amount of plastic used in sales promotional items by 50% compared with 2019 standards by 2025 and to zero by 2030 across the Group, and are proceeding with the measures necessary to those ends. More specifically, we are replacing the plastic used in display hooks and fixtures and point-of-purchase (POP) displays with paper materials and are developing racks made of paper.

As a result of these and other efforts, in 2022 the amount of plastic used in sales promotional items in Japan decreased by 81.8% compared with 2019 standards. Our best practices in Japan will be shared with our subsidiaries overseas with the aim of reducing plastic use across the entire Group.

### Amount of Plastic Used in Sales Promotional Items (Japan)



Sales promotional items made from paper

**P.041** Plastic Waste Reduction Measures