# **Environmental Protection**

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# **Environmental Protection Structure**

The RIKEN TECHNOS GROUP aims to keep being a company that contributes to the realization of a prosperous society and responds to the trust of all its stakeholders through environmentally conscious corporate activities. For this objective, we have established an environmental protection structure to perform activities based on our Environmental Policy and sustain our ISO 14001 certification.

At the top is the executive officer overseeing the environmental management system. Under the direction of the chief environmental management representative, we appoint environmental management representatives at each site, and build and operate our environmental management system.

#### ISO 14001 (2015) Certification

Registration date: October 31, 2001 (Certification being maintained)

# **Environmental Policy**

For all our business activities, we take into consideration the effects on the environment. To protect the environment and realize a sustainable society, RIKEN TECHNOS established an environmental management system, and all members of the RIKEN TECHNOS GROUP work to implement the following principles.

- Through all business activities, the RIKEN TECHNOS GROUP improves environmental management levels and prevents environmental pollution by not only observing all environmental regulations and mutual agreements but also setting our own rules and regulations voluntarily.
- 2. The RIKEN TECHNOS GROUP supplies the market with various plastics that prioritize the environment such as those that are energy-saving, resource-saving, recyclable, and that have low-impact on biodiversity and ecological systems, while using guaranteed safe raw materials.
- 3. The RIKEN TECHNOS GROUP reduces its impact on the global environment, biodiversity, and ecological systems by eliminating wastefulness wherever possible. We reduce industrial waste by using materials effectively, and CO<sub>2</sub> emissions by making efforts to save energy.
- 4. The RIKEN TECHNOS GROUP continues environmental protection activities by establishing documents including the Environmental Policy, and by educating employees.
- The RIKEN TECHNOS GROUP sets concrete objectives and numerical targets of which progress is regularly self-assessed and managed properly to ensure the achievement of the Environmental Policy.
- The RIKEN TECHNOS GROUP implements the above-mentioned activities Group-wide to ensure the utmost consideration to the protection of the environment, biodiversity, and ecological systems and the safe operation at each site.
- The RIKEN TECHNOS GROUP aims to obtain confidence and understanding from society through appropriate and accurate information disclosure.

# **Taking on Challenges toward a Sustainable Global Environment**

# **Environmentally Friendly Products**

In addition to complying with various laws and regulations on the environment and chemical substances, the RIKEN TECHNOS GROUP carries out environmental management at a high level, such as by prohibiting/reducing the use of chemical substances with high environmental load, and works on improving its product development and manufacturing methods aiming to reduce environmental load.

In our long-term vision, we stated "Contribute to a sustainable society, flexibly adapting to changes in society and the environment" as part of our "ideal image for 10 years' time." To achieve our long-term vision, we will expand the lineup and sales of RIKEBIO® series, which uses biomass materials as raw materials. At the same time, we will expand sales of thermoplastic elastomer (TPE) products—as an environmentally friendly material to substitute vulcanized rubber and coating—and polyvinyl chloride (PVC) products. We will also clarify our definition of products that contribute to the environment and advance the development of environmentally friendly products sought by the market.

#### ■ Thermoplastic Elastomer

TPE has the same elasticity as rubber at room temperature and can be freely molded when heated. It can be molded with less energy than vulcanized rubber, which requires heat and time for function onset, and material recycling is also possible. We are developing high-functionality products by adding functions as necessary for the required application. In addition, it is lower relative density compared to vulcanized rubber, helping to make automobile components lighter and improving fuel efficiency, thereby contributing toward saving energy.

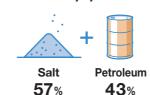
# Polyvinyl Chloride Resin

PVC can be said to be a material that has less environmental load than other general-purpose resins made from 100% petroleum-derived raw materials because salt (a natural material) accounts for about 60% of its raw material. PVC products can be given various functions such as durability, long life spans, and recyclability. Furthermore, using biomass plasticizers, we seek to reduce environmental load by developing compounds and films that are blended with plant- and nature-derived additives. We also seek to build a circular business model and are undertaking industry-academia collaboration for the recycling of used PVC products.

Features of Thermoplastic Elastomer Raw Materials of Polyvinyl Chloride Resin



Approximately 20% to 30%\* lighter than vulcanized rubber \* Based on our products



# PVC Window Frames Hose for Civil Engineering Use Dust Boots (Molded Parts for Automobiles) Syringe Gaskets

# ■ PVC Products with High Durability and Long Life Spans

Compared to other resin products, PVC products have long life spans and can be used for 10 years to several decades in construction applications, thereby helping to save resources. They have a wide range of applications as they can be used both indoors and outdoors.

### **■ Elastomers That Are Useful as Rubber Substitutes**

Widely used in molded parts for automobiles, such as sealing materials, elastomers also contribute toward making vehicles lighter and improving fuel efficiency. In addition, as they do not require a vulcanization process, they can also be used in medical products that require a high level of hygiene.

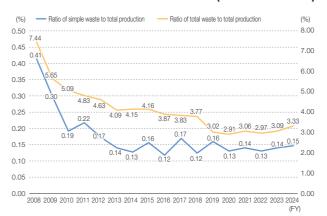
# **Reducing Industrial Waste**

The main types of environmental load in the RIKEN TECH-NOS GROUP's business activities come from greenhouse gas (CO<sub>2</sub>) emissions and the discharge of industrial waste and chemical substances, and we strive to reduce and manage them properly.

Based on the scope of ISO 14001 certification, we consider the Company's non-consolidated reduction of simple (landfill and incineration) waste generated in the manufacturing stage to be one of the main goals of environmental management activities, and have been working toward the targets of reducing the ratio of simple waste to total production to 0.1% or less and reducing the ratio of total waste to total production to 3.3% or less. We are promoting restraint in generating waste by improving yields in our production processes, as well as strictly separating generated waste into material recycling, thermal recycling, Refuse Plastic Fuel, raw cement material, and such for conversion to effective use.

Our target is to limit the ratio of total waste to total production to 3.0% or less by FY2030, and we have set progressive reduc-

#### Ratio of Total Waste to Total Production (Non-consolidated)



tion targets each year and are working on steady reduction. We will continue to implement initiatives toward achieving our target.

# **Appropriate Management of Chemical Substances**

We are managing chemical substances in accordance with laws such as the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement, the Industrial Safety and Health Act, and the Fire Service Act. Furthermore, we thoroughly check and manage the chemical substances we use to comply with laws and regulations for diverse chemical substances (such as the Act on the Regulation of Manufacture and Evaluation of Chemical Substances, Industrial Safety and Health Act, Food Sanitation Act, and the European Union's RoHS Directive and REACH Regulation). We also have developed a chemical substance management system that we can refer to about chemical substances regulated by laws and regulations. During product development, we select raw materials based on our internal standards as well as laws and regulations. In addition, we have also established a structure that allows us to understand the required level of chemical substance management for products by manufacturing sites.

# **Protecting Biodiversity**

We are working to eliminate the usage of class I and II specified chemical substances and monitoring chemical substances under the Act on the Regulation of Manufacture and Evaluation of Chemical Substances, and reduce the usage of class I designated chemical substance under the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement. Additionally, we comply with the Air Pollution Control Act, Water Pollution Prevention Act, Industrial Safety and Health Act, and other laws, and take into consideration the effects on people and ecological systems in developing, manufacturing, and marketing our products. We also work on maintaining the green areas around our factories.

RIKEN TECHNOS GROUP Integrated Report 2025 54

# **Responding to Climate Change**

The RIKEN TECHNOS GROUP recognizes that responding to issues surrounding sustainability is one of our key corporate challenges for medium- to long-term corporate survival. By incorporating our responses into management, we seek to contribute to the development of a sustainable society and also strive to enhance our corporate value.

The Group has also announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and we undertake initiatives and information disclosure in line with the recommendations.



#### Task Force on Climate-related Financial Disclosures (TCFD)

This is an industry-led task force established in 2015 by the Financial Stability Board in response to G20's intention. The task force recommends the evaluation of financial impact of risks and opportunities arising from climate change on management and disclosure in four thematic areas (governance, strategy, risk management, and metrics and targets). (Official website of TCFD: https://www.fsb-tcfd.org/)

# Governance

The following climate-related topics are deliberated by the Sustainability Committee.

#### Main Topics Deliberated by the Sustainability Committee

- Climate-related scenario analysis
- Identification and materiality assessment of short-, medium-, and long-term climate-related risks and opportunities
- Strategic approach policy for identified significant climate-related risks and opportunities
- · Consideration of specific measures for responding to climate-related risks and opportunities
- Management of progress with adopted measures for responding to climate-related risks and opportunities

# **Risk Management**

Regarding climate change and other risks related to sustainability, we undertake the formulation of policies related to risk avoidance, mitigation, and control, proposal of countermeasures, and other such matters centered on the Sustainability Committee and the Risk & Compliance Committee. On top of that, we conduct Group-wide risk management based on resolutions made at the Board of Directors. We also monitor how the countermeasures are being implemented and their effects.

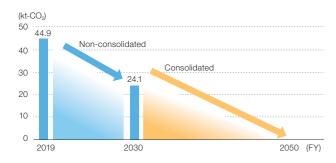
# **Metrics and Targets**

Greenhouse gas (CO<sub>2</sub>) emissions may pose a risk to the RIK-EN TECHNOS GROUP's overall financial condition, but they can also lead to business opportunities following the development of products acceptable to a decarbonized society

The Group seeks to achieve carbon neutrality for the entire

#### CO<sub>2</sub> Emissions (Scope 1 and 2) Reduction Target

- 46.2% decrease by RIKEN TECHNOS by FY2030 compared to FY2019
- Group-wide carbon neutrality achievement by FY2050



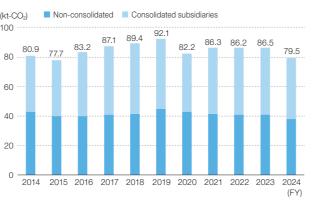
# **Strategy**

The RIKEN TECHNOS GROUP has performed scenario analyses for the years 2030 and 2050 in the context of climate change based on two world views: a 1.5°C and a 4°C rise in global temperatures.

With the scenario with a rise in global temperatures by less than 1.5°C, we presume, as risks with substantial financial impact, emergence and increases in development and procurement costs associated with the introduction of a carbon tax and shifts from conventional raw materials to low-carbon raw materials. With the scenario with a 4°C rise

Group by FY2050. In addition to setting medium- to long-term CO<sub>2</sub> emissions reduction targets for the Group as a whole, we have been planning specific initiatives to reduce CO<sub>2</sub> emissions and have determined indicators to manage the progress of these initiatives.

#### CO<sub>2</sub> Emissions (Scope 1 and 2)



in global temperatures, potential risks include increases in the prices of raw materials derived from petrochemicals, raw material procurement costs, expenses to address environmental regulations, and costs associated with petroleumand coal-derived raw materials and fuels, among others. Centered on the Sustainability Committee, we identify the short-, medium-, and long-term climate-related risks and opportunities to assess their materiality and financial impact, formulate specific measures against identified risks and opportunities, and manage the progress of such measures.

The Group's performance may be affected by the introduction of policy measures to combat climate change, such as a carbon tax, or by delays in the development of or other action concerning environmentally friendly products.

Risk Type		Risk Overview	Financial Impact	
			1.5°C	4°C
×	Policies and regulations	Increased carbon taxes raise costs of procuring key raw materials and energy.	Medium	Small
	Policies and regulations	The introduction of a carbon tax results in the substitution of conventional raw materials with low-carbon raw materials, which generates or increases costs associated with the development and procurement costs of substitute raw materials.	Large	-
on Risk	Technology	Delays in the development of environmentally friendly products and their replacement our products with low-carbon products from competitors could reduce demand for and sales of our products and services.	Medium	_
Transition	Markets	Prices of raw materials derived from petrochemicals soar, raising costs of procuring raw materials.	Small	Large
Ī	Markets	Delay in responding to our customers' reduced needs for petroleum-derived raw materials and rising needs for non-petroleum-derived raw materials, shifts demand away from our products/services and decreases our sales.	Medium	_
	Reputation	Delayed action on the environment causes a drop in our stock price due to a decline in investors' assessment of our environmental performance.	Medium	_
Physical Risk	Acute	The Company and its supply chain are struck by a disaster and until operations are restored, sales decrease due to the suspension or reduction of business activities, while costs associated with restoration and countermeasures rise.	Medium	Medium
	Chronic	Costs of countermeasures for our buildings located near oceans and rivers increase due to the increased occurrence of flooding caused by overflowing rivers and rising sea levels attributable to extreme fluctuations in rainfall and weather patterns.	Small	Medium

The Group's performance may be affected by the development of products that contribute to energy conservation and the provision of low-carbon type products and materials with added functions.

Opportunity Type	Opportunity Overview	Financial Impact	
Оррогини туре		1.5℃	4°C
Energy sources	Development of products that contribute to energy conservation in the market and the uptake of renewable energy generation technologies and equipment increase sales of our related products.	Small	_
Products and services	Demand for and sales of our products increase due to the development and sale of materials with additional functions and products with fewer petroleum-derived components (low-carbon type products) in response to increased demand for low-carbon type products.	Medium	-
Reputation	Proactive efforts to address climate change earn the trust of stakeholders and enhance our enterprise value.	Medium	_
Resilience	The global expansion of our business sites improves our resilience by providing a stable supply of products to our customers even in an environment of increasing natural disasters, forestalling sales declines and building customer trust, leading in turn to higher sales.	Small	Small
Scenarios used in analysis	y (SSP1-1.9), II 3.5), IPCC, 20		

# The RIKEN TECHNOS GROUP's CO<sub>2</sub> Emissions (FY2024)

#### ■ Our Group's CO₂ Emissions



# **■ CO**<sub>2</sub> Emissions from Our Group's **Supply Chain (Scope 3)**

No.	Category Name	(t-CO <sub>2</sub> )
1	Purchased raw materials and services	927,476
2	Capital goods	13,041
3	Energy not included in Scope 1 or 2	9,881
4	Upstream transportation and distribution	891*
5	Waste generated in operations	696
6	Business travel	246
7	Employee commuting	864
9	Downstream transportation and distribution	5,945*
12	End-of-life treatment of sold products	207,523

Category 4 and 9 emissions concern RIKEN TECHNOS only.

## **Carbon Neutrality Initiatives**

In addition to developing and enriching our environmentally friendly products such as the RIKEBIO® series, we are working on renewals of factory lighting and manufacturing-related facilities to those with less energy consumption, the introduction of electric forklifts, and the use of fuel-efficient vehicles.

#### Formulation of Road Map toward the Achievement of **CO**<sub>2</sub> Emissions Reduction Targets

Following the road map for RIKEN TECHNOS, we have been working on the formulation and implementation of measures to reduce CO<sub>2</sub> emissions.

In addition, we further promote this initiative by introducing an internal carbon pricing system for capital investments expected to reduce CO<sub>2</sub> emissions and incorporating this system in our process for making investment decisions.

We also introduced solar power generation facilities to factory buildings of a consolidated subsidiary in Thailand as an investment in the renewable energy field.

#### Future Initiatives

- Refining of the Energy Road Map
- Boiler energy conversion
- Introduction of additional solar power generation facilities
- Upgrades of facilities at production sites and energy conservation of existing facilities

• Expansion and increased sales of environmentally friendly products

RIKEN TECHNOS GROUP Integrated Report 2025 RIKEN TECHNOS GROUP Integrated Report 2025 56