

Chemical substances possess inherent properties that offer outstanding benefits. At the same time, however, chemical substances can harm people’s health and place a burden on the environment if they are misused.

One element of Fuji Electric’s Environmental Vision 2050 is the realization of a society that is in harmony with nature. To accomplish this element of the vision, we practice appropriate management of chemical substances while working to reduce their use in order to prevent damages to ecosystems.

[Managing and Reducing the Use of Chemical Substances](#) ▾

[Managing Chemical Substances Contained in Products](#) ▾

Managing and Reducing the Use of Chemical Substances

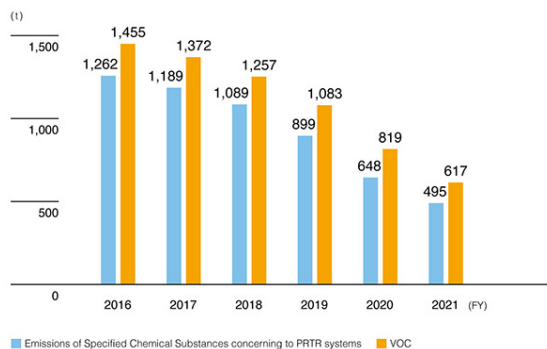
Fuji Electric set a goal of reducing its environmental emissions of chemical substances by 40% compared with levels recorded in fiscal 2000 by fiscal 2010. This target covers emissions of Act on the Assessment of Releases of Specified Chemical Substances and its chemical Pollutant Release and Transfer Register (PRTR)*1 system Law-designated substances and for atmospheric emissions of volatile organic compounds (VOCs) in accordance with the voluntary action plan put forward by Japan’s four electrical and electronics industry organizations*2 based on the Air Pollution Control Act. Emissions of PRTR-designated substances in fiscal 2010 were down 40.4% compared with levels recorded in fiscal 2000. Atmospheric emissions of VOCs were reduced by 62.2%. In each case, Fuji Electric successfully achieved its targets.

Since fiscal 2010, Fuji Electric has sought to achieve voluntary targets set as part of its Environmental Management 3-Year Rolling Plan.

In fiscal 2021, we achieved our global emission targets for PRTR-designated substances, realizing 495 tons against the target of less than 1,505 tons, with a reduction on the previous year by 153 tons. As for VOCs, we also achieved our global emission targets (less than 1,694 tons) by realizing 617 tons, with a reduction on the previous year by 202 tons.

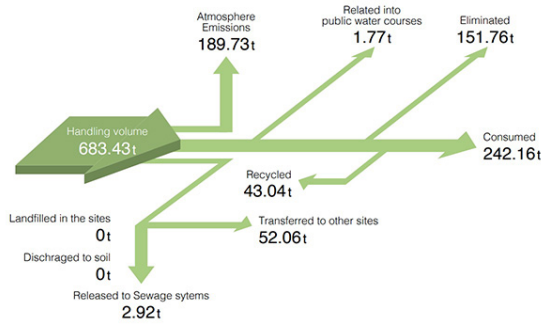
- *1 Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement
- *2 The four electrical and electronic industry associations were The Japan Electronics and Information Technology Industries Association (JEITA), the Communications and Information Network Association of Japan (CIAJ), the Japan Business Machine and Information System Industries Association (JBMIA), and the Japan Electrical Manufacturers’ Association (JEMA)

Amount of Emissions of PRTR-Designated Substances and VOC Atmospheric Emissions



Material Balance of PRTR-Designated Substances in Japan

Contribution to SDGs
ESG Material Issues
Environmental Vision
– Environment
<ul style="list-style-type: none"> Polices, Environmental Vision 2050 Basic Polices on Environmental Protection Message from the Environmental Officer Environmental Vision 2050 Approach to Disclosing Climate-related Information In Accordance with TCFD Recommendations Environmental Management Environmental Management Organizational Framework Environmental Management Initiatives Environmental Achievements Environmental Management Targets and Achievements Interplay between Business Activities and Environmental Impact Environmental Accounting Environmental data Third-Party verification Achieve a Decarbonized Society Action Plan to Reduce Greenhouse Gas Emissions Reducing Greenhouse Gas Emissions During Production Reducing Society’s CO2 Emissions through Products Target for Reducing Greenhouse Emissions Across the Supply Chain Recycling-Oriented Society Reducing Waste in Business Activities Efficient Use of Water Resources Initiatives for Reducing Environmental Impact of Products Society that is in Harmony with Nature
– Managing Chemical Substances
Preserving Biodiversity
Society
Governance
ESG Index
Comparison with ISO26000
External Evaluation
Activity Archives
Participation in initiatives



Note: Wastewater is properly treated using wastewater treatment equipment at all production bases, and wastewater standards have been met. Accordingly, there have been no discharges of heavy metals or other substances into water environments that exceed standards.

Managing Chemical Substances Contained in Products

Fuji Electric's policy on chemical substances contained in products is as follows.

"All products comply with all relevant environmental regulations"

To follow this policy, we aim to minimize the risk of chemical substances by systematically eliminating or substituting (to the extent possible and in advance of regulatory deadlines) chemical substances contained in products and used in processes.

Region/country	Japan	EU	USA	China
Regulations and laws	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. J-MOSS Fluorocarbon Emissions Control Act (Montreal Protocol)	RoHS Directive REACH Regulation	TSCA Proposition 65	China RoHS

- Management Tools: Green Procurement Guidelines and a Parts Database

In order to properly manage environmentally regulated substances contained in Fuji Electric's products, we have established Green Procurement Guidelines as rules that enable us to cooperate with our supply chains to obtain information on chemical substance content in our products.

The obtained information is managed through an in-house database of parts that makes it easy to provide the information to customers when necessary.

The database manages the chem-SHERPA investigation scheme, as well as our company guarantee that our products do not contain prohibited substances.

- Regulated substance compliance activity organization

In order to manage and share information on chemical substances contained in Fuji Electric's products, we established the Environmentally Regulated Substances Working Group in 2003, which consists of design members from each product unit as a company-wide cross-sectional organization that continues its activities to this day. Currently, regular meetings are held twice a year.

- Achievements of Fuji Electric's attempt to Date

In compliance with the RoHS Directive, we have taken the following measures:

- To develop lead-free solder and apply it to products (Completed by 2006)
- To replace lead, cadmium, and mercury in paints, alloys, and electronic materials (Completed by 2006)
- To develop hexavalent chromium-free technologies for steel sheets, plating, and paints (Completed by 2006)
- To replace certain bromine-based flame retardants (Completed by 2006)
- To replace four specific phthalic esters in cables, capacitors, rubber parts, etc. (Completed by the start of the regulations in 2019 and 2021)

A total of 35 X-ray fluorescence analyzers were installed between 2003 and 2004 at all domestic and overseas component factories to perform regular inspections of incoming parts.

In compliance with the REACH Regulation, we have taken the following measures:

In order to ensure provision of information on chemical substances contained in products as required by REACH, we have established and revised our Green Procurement Guidelines and built a database of parts and materials, and continue to obtain information from upstream suppliers namely suppliers of parts and materials and provide information to downstream companies namely distributors of our products.

In compliance with laws on fluorocarbons namely Montreal Protocol, we have taken the following measures:

- To develop and apply CFC-free and GWP 1 refrigerants (R1234yf) for vending machines (Completed by 2011, ahead of the rest of the industry). In fiscal 2011, We developed Vending machines which use of CFC-free refrigerants or refrigerants GWP less than 1 as mass products ahead of the rest of industry

In compliance with TSCA PIP (3:1) PBT, we have taken the following measures:

We are currently assessing usage in our products and have begun to provide information to our customers.

We are moving forward with replacement products in accordance with the existing regulatory date of October 1, 2024.

- Overseas factory management

We maintain proper management of regulated substances contained in products at our overseas factories through procurement of parts and materials and manufacturing management based on the design specifications of mother factories in Japan.

Supplement

- CSCL: Japan's "Chemical Substances Control Law"
- J-MOSS: JIS "JIS C 0950 Marking for presence of the specific chemical substances for electrical and electronic equipment"
- Law on fluorocarbons: Japan's "Act on Rational Use and Appropriate Management of Fluorocarbons"
- Montreal Protocol: International "Montreal Protocol on substances that deplete the ozone layer"
- RoHS Directive: EU's "Directive 2011/65/EU of the European Parliament and Council of June 8, 2011 on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment"
- REACH Regulation: EU's "Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (Regulation 1907/2006 of the European Parliament and Council)"
- TSCA: United State's "Toxic Substances Control Act"
- Proposition 65: The State of California's "Safe Drinking Water and Toxic Enforcement Act"
- China RoHS: China's "Act on the Regulation and Management of the Use of Hazardous Substances in Electrical and Electronic Equipment and Products"

[Link](#)

- ▶ [Green Procurement](#)