Environmental Activities: Supplementary Data

1 Climate Change Mitigation and Adaptation

Reducing Greenhouse Gas Emissions

■ Greenhouse Gas Emissions (All Seven Gases) (Sumitomo Chemical: All Worksites)

(Thousand tons of CO_2e)

		FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
CO_2	Energy sources	2,559	2,405	2,454	2,543	2,722	2,645	2,549	2,537	2,322
	From other than energy use	55	50	93	155	142	157	146	137	217
Methane (CH_4)		—	—	—	—	—	—	—	—	—
Nitrous oxide (N_2O)		65	45	35	23	15	20	22	22	16
Hydrofluorocarbon (HFC)		—	—	—	—	4	4	—	—	—
Perfluorocarbon (PFC)		—	—	—	—	—	—	—	—	—
Sulfur hexafluoride (SF_6)		—	—	—	—	—	—	—	—	—
Nitrogen trifluoride (NF_3)		—	—	—	—	—	—	—	—	—

Note: Calculated based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.

Energy Saving

FY2023 Breakdown of Unit Energy Consumption (Sumitomo Chemical)

	Energy consumption (1,000 kl in crude oil equivalent) (a)	Production (1,000 tons in ethylene equivalent) (b)	Unit energy consumption (a/b)
Ehime Works	412	594	0.693
Chiba Works	368	301	1.223
Osaka Works	22	14	1.556
Oita Works*	54	39	1.406
Misawa Works	11	10	1.160
Ohe Works	24	132	0.186
Total	891	1,089	0.819

Notes: • Calculated based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.
• Ibaraki Works, which was added from fiscal 2022, is excluded.
Moreover, the Works' energy consumption, total floor area, and unit energy consumption were 5 thousand kl (crude oil equivalent), 17 thousand m^2, and 0.301, respectively.

* Data for the Oita Works includes data for the Gifu and Okayama plants.

FY2023 Energy Consumption and CO_2 Emissions (Sumitomo Chemical and Group Companies in Japan: All Worksites)

	Energy consumption (1,000 kl in crude oil equivalent)	CO_2 emissions from energy use (1,000 tons)
Sumitomo Chemical	909	2,322
Works	897	2,298
Non-manufacturing sites including the Head Offices and Research Laboratories	12	24
Sumitomo Chemical and Group companies in Japan	1,437	3,661
Works	1,408	3,607
Non-manufacturing sites including the Head Offices and Research Laboratories	29	54

Notes: • Calculated based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.
• The boundary of calculation covers major consolidated Group companies, accounting for 99.8% of Sumitomo Chemical's consolidated net sales.

2 Contribute to Recycling Resources, Sustainable Use of Natural Capital

Environmental Performance

Sumitomo Chemical collates and totals environmental data for the Company and Group companies in Japan and overseas, including data on energy and resource consumption, production quantities, and environmental impact (e.g., release of pollutants into the air and water).

FY2021–2023 Environmental Performance (Sumitomo Chemical and Group Companies in Japan)

INPUT Energy and Resources

Water

(Million tons)

	FY2021	FY2022	**FY2023**
Industrial water	70.5	69.5	68.7
Drinking water	0.9	0.8	0.8
Seawater	862	763	606.6
Groundwater	25.5	26.3	22.2
Other water	2.7	2.5	2.3
Total	962	863	701

Energy

Calculated as kl of crude oil

(Thousand kl)

	FY2021	FY2022	**FY2023**
Fuel, heat, and electricity*1	1,801	1,634	1,437

Exhaustible Resources

(Thousand tons)

	FY2021	FY2022	**FY2023**
Hydrocarbon compounds	1,713	1,684	1,451
Metals (excluding minor metals)*2	115	104	85
Minor metals*3	17.4	16.2	15

PCB/CFCs under Secure Storage

	FY2021	FY2022	**FY2023**
No. of electrical devices containing high concentrations of PCBs*4	0	0	0
PCB volume (pure equivalent) (kl)*4	0	0	0
No. of refrigeration units using specified CFCs as a coolant	27	20	24
No. of refrigeration units using HCFCs as a coolant	286	277	214

Note: The number of companies included in the boundary of calculation for the environmental performance data on page 3 is as follows for each year.
FY2021: Sumitomo Chemical and Group companies in Japan: 23 companies
FY2022: Sumitomo Chemical and Group companies in Japan: 22 companies
FY2023: Sumitomo Chemical and Group companies in Japan: 23 companies

*1 From fiscal 2017, the energy (calculated as kl of crude oil) indices were calculated based on the GHG Protocol (refer to "Calculation Standards for Environmental and Social Data Indicators").

*2 Calculations include the following 12 metals: iron, gold, silver, copper, zinc, aluminum, lead, platinum, titanium, palladium, gallium, and lithium.

*3 Calculations include the following seven minor metals: nickel, chromium, tungsten, cobalt, molybdenum, manganese, and vanadium. The supply structure for each of these minor metals is extremely fragile. These minor metals are subject to national stockpiling.

*4 Fluorescent lamps and mercury lamp ballast as well as contaminated substances (wastepaper, etc.), including PCB waste, are not included in unit and volume data.

OUTPUT Product Manufacturing and Environmental Impact

Products

(Thousand tons)

	FY2021	FY2022	FY2023
(Calculated on the basis of ethylene production)*1	2,613	2,413	1,963

Water Pollutant Emissions

(Tons)

		FY2021	FY2022	FY2023
COD	Coastal waters/waterways	960	825	641
	Sewer systems	207	175	137
Phosphorus	Coastal waters/waterways	36.1	32.0	24.9
	Sewer systems	5.9	6.1	5.0
Nitrogen	Coastal waters/waterways	1,303	1,236	1,057
	Sewer systems	68.6	47.8	27.2
Substances subject to the PRTR Act		11.1	13.3	13.6

Water Discharge

(Million tons)

	FY2021	FY2022	FY2023
Total amount of water discharge	920	809	658

Note: Includes seawater emissions of Sumitomo Joint Electric Power Co., Ltd.

Waste Materials

(Thousand tons)

	FY2021	FY2022	FY2023
Outsourced waste processing*2	276	232	157
Landfill*2	30.7	21.9	14.9
(Breakdown)			
On-site landfill	0	0	0
External landfill	30.7	21.9	14.9

Atmospheric Emissions

(Thousand tons of CO_2e)

	FY2021	FY2022	FY2023
Greenhouse gases (seven gases)*3	6,241	5,418	4,119
Emissions from energy use (CO_2)	5,435	4,639	3,661
CO_2 emissions from other than energy use	655	633	382
CH_4	6	6	—
N_2O	143	137	75
HFC	2	3	1
PFC	—	—	—
SF_6	—	—	—
NF_3	—	—	—

Others

(Tons)

	FY2021	FY2022	FY2023
NOx	3,901	3,783	2,597
SOx	3,896	3,098	1,958
Soot and dust	173	167	127
Substances subject to the PRTR Act*4	420	404	635

Note: The number of companies included in the boundary of calculation for the environmental performance data on page 4 is as follows for each year.
FY2021: Sumitomo Chemical and Group companies in Japan: 23 companies
FY2022: Sumitomo Chemical and Group companies in Japan: 22 companies
FY2023: Sumitomo Chemical and Group companies in Japan: 23 companies

*1 Certain assumptions were made in calculations due to the difficulty of obtaining weight-based figures for some products.
*2 The amount of coal ash generated at Sumitomo Joint Electric Power, which is included in "Waste emissions" and "Landfill" (Sumitomo Chemical and Group companies in Japan) is calculated on a dry-weight basis.
*3 From fiscal 2017, the energy (calculated as kl of crude oil) indices were calculated based on the GHG Protocol (refer to "Calculation Standards for Environmental and Social Data Indicators"), and include major domestic consolidated group companies accounting for 99.8% of sales.
*4 Calculated based on the amount released into water/the air of each substance subject to the PRTR Act.

Compliance with Environmental Laws and Regulations

(Yen)

	FY2021	FY2022	FY2023
Total fines	0	0	0

Note: **Sumitomo Chemical and our 22 Group companies in Japan, making a total of 23 companies, are included in the boundary of calculation**
[The production sites of the 22 Group companies in the boundary are listed below]
Sumika-Kakoushi Co., Ltd.; Sumika Color Co., Ltd.; Sumika Plastech Co., Ltd.; Nippon A&L Inc.; Asahi Chemical Co., Ltd.; Ceratec Co., Ltd.; Sumika Assembly Techno Co., Ltd.; SanTerra Co., Ltd.; Sumika Agro Manufacturing Co., Ltd.; SC Environmental Science Co., Ltd.; Sumika Agrotech Co., Ltd.; Sumika Polycarbonate Ltd.; Nihon Medi-Physics Co., Ltd.; Sumitomo Joint Electric Power Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; Tanaka Chemical Corporation; Sumitomo Pharma Co., Ltd.; SN Kasei Co., Ltd.; Sanritz Corporation; Sumika High-Purity Gas Co., Ltd.; and Sumika Kowa Tech Co., Ltd.

Evaluation of Environmental Protection Costs and Economic Effects through Environmental Accounting

Sumitomo Chemical continuously gathers and evaluates data on environmental protection-related expenses, investments, and economic results in line with the Company's environmental accounting system introduced in fiscal 2000.

◆ Items Pertaining to Environmental Accounting

(1) Period: April 1, 2023 to March 31, 2024 for Group companies in Japan; January 1, 2023 to December 31, 2023 for overseas Group companies

(2) Boundary: Sumitomo Chemical and 21 major consolidated subsidiaries (16 in Japan and 5 overseas)*; 22 companies in total

(3) Composition (Classification): Based on Ministry of the Environment (Japan) guidelines

(4) Outline of the results (investment and expenses): Consolidated investment decreased year on year by 4.6 billion yen, and consolidated expenses increased by 0.1 billion yen.

■ Environmental Protection Cost

(Billion yen)

Classification		Details of Major Initiatives	FY2022				FY2023			
			Non-Consolidated		Consolidated		Non-Consolidated		Consolidated	
			Investment	Expenses	Investment	Expenses	Investment	Expenses	Investment	Expenses
Facility Area Costs			4.2	23.8	7.3	36.8	1.4	23.7	2.9	36.8
Breakdown	Pollution Prevention Costs	Prevention of air pollution, water pollution, soil contamination, noise pollution, odors, ground subsidence, etc. (pages 7–8)	(1.0)	(17.8)	(3.4)	(23.1)	1.1	17.9	1.9	23.7
	Global Environmental Protection Costs	Energy saving, prevention of global warming, ozone layer depletion, and other measures (pages 2, 10)	(0)	(0.3)	(0.4)	(4.3)	0	0.2	0.5	3.8
	Resource Recycling Costs	Resource saving, water saving and rainwater usage, waste reduction/disposal treatment, recycling, etc. (refer to "Contribute to Recycling Resources" on pages 4-5 and the Supplementary Data on pages 14-18)	(3.2)	(5.8)	(3.5)	(9.5)	0.3	5.6	0.4	9.3
Upstream/Downstream Costs		Green purchasing, recycling, recovery, remanufacturing and appropriate treatment of products, recycling costs associated with containers and packaging, environmentally friendly products and services, etc.	0	0.1	0	0.4	0	0.1	0	0.3
Administrative Costs		Costs associated with environmental education, environmental management systems, the monitoring and measuring of the environmental impact of business activities and products, environmental organization operations, etc. (pages 21-22)	0	0.9	0	1.5	0	0.8	0	1.5
R&D Costs		Development of products with attention to environmental safety, research into energy-saving processes, etc.	0.1	9.5	0.1	9.7	0	9.9	0	10.0
Social Activities Costs		Protection of the natural environment and enhancement of its scenic beauty and greenery, support for community initiatives aimed at environmental protection, support for environmental preservation groups, environment-related paid contributions and surcharges, etc.	0	0.4	0	0.9	0	0.4	0	0.7
Environmental Remediation Costs		Environmental rehabilitation of contaminated environments and other environmental damage, reserve funds to cover environmental recovery, etc.	0	0	0	0	0	0	0	0
Total			4.3	34.7	7.5	49.3	1.4	34.9	2.9	49.4

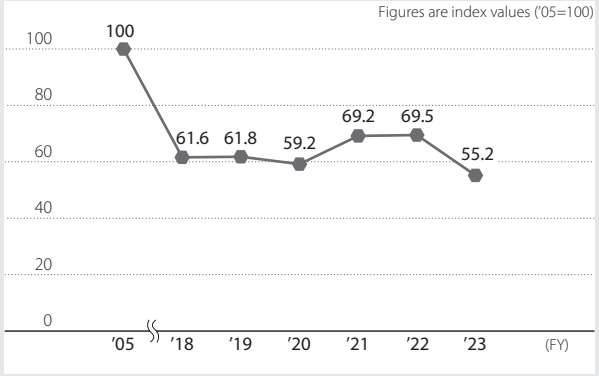
* Sumitomo Pharma Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; Asahi Chemical Co., Ltd.; Sumitomo Joint Electric Power Co., Ltd.; Sumika Color Co., Ltd.; Nihon Medi-Physics Co., Ltd.; Nippon A&L Inc.; SanTerra Co., Ltd.; Sumika-Kakoushi Co., Ltd.; Sumika Agrotech Co, Ltd.; Ceratec Co., Ltd.; SC Environmental Science Co., Ltd.; SN Kasei Co., Ltd.; Sumika Agro Manufacturing Co., Ltd.; Sumika Plastech Co., Ltd.; Dongwoo Fine-Chem Co., Ltd.; Sumitomo Chemical Asia Pte Ltd.; The Polyolefin Company (Singapore) Pte. Ltd.; Sumika Technology Co., Ltd.; and Sumika Electronic Materials (Wuxi) Co., Ltd.

Economic Effects

(Billion yen)

Results	FY2022		FY2023	
	Non-Consolidated	Consolidated	Non-Consolidated	Consolidated
Reduced costs through energy saving	0.1	0.2	1.2	1.5
Reduced costs through resource saving	0.4	0.7	0.4	1.9
Reduced costs through recycling activities	4.0	4.5	5.0	6.4
Total	4.5	5.5	6.5	9.8

Cost Efficiency of Environmental Protection Measures (Sumitomo Chemical: All Worksites)



Note: After performing more detailed calculations, the figure for the cost efficiency of environmental protection measures in fiscal 2022 was revised from 92.3 to 69.5.

In fiscal 2005, we began implementing measures to improve the cost efficiency of our environmental protection measures by making sure that all activities were as cost effective as possible. We will implement more effective measures by analyzing and studying the breakdown of our environmental protection costs and reviewing each item to determine its importance. We calculate the cost efficiency of our environmental protection as the ratio of annual total production value to total environmental protection costs, in order to better reflect actual production activities in the calculation.

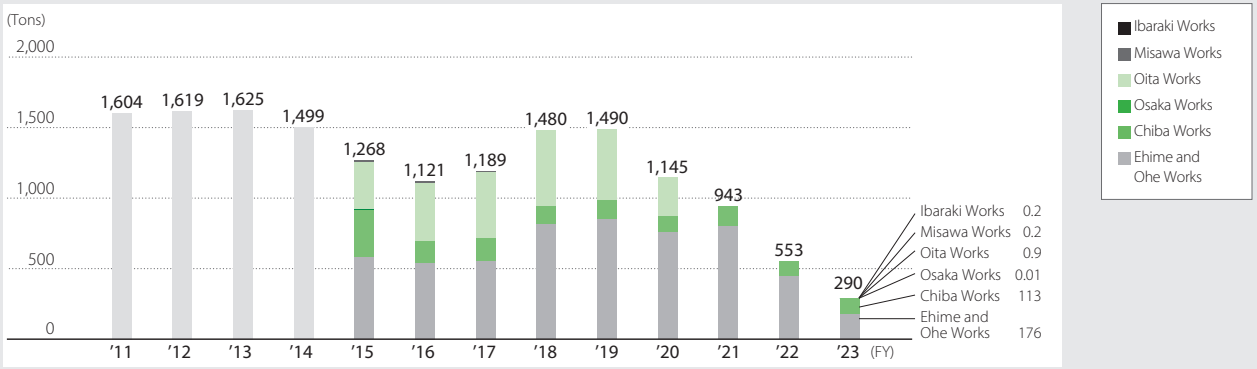
Preventing Pollution: Atmospheric Emissions of SOx, NOx, Soot, and Dust

In 1970, Sumitomo Chemical achieved a marked reduction in the release of SOx, NOx, soot, and dust into the atmosphere, and continued to maintain low levels of emissions from 1980 to the present. Furthermore, the Company has concluded cooperative agreements with local municipal governments at each of its Works, establishing voluntary control levels that are stricter than the standards given under applicable laws and regulations.

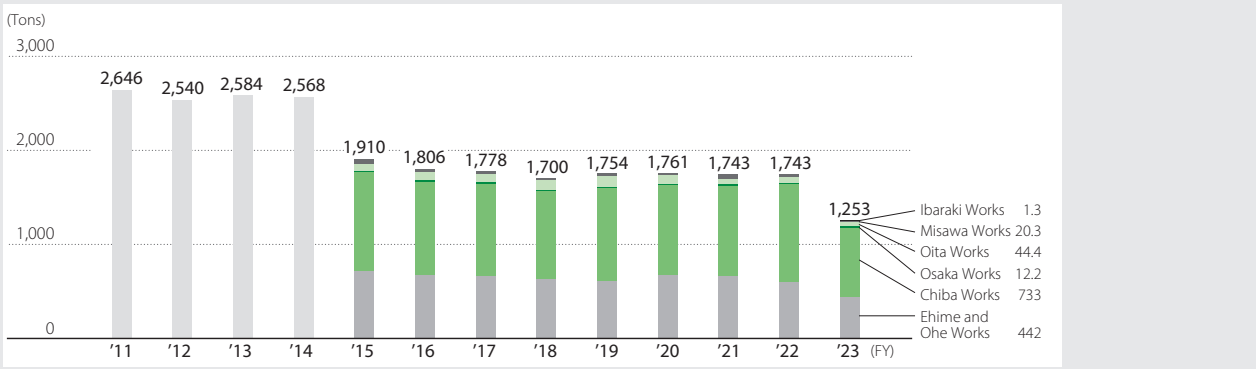
Note: Data for the Gifu Plant and Okayama Plant from fiscal 2004 to fiscal 2012 is included in Osaka Works. Data for the Gifu Plant and Okayama Plant from fiscal 2013 is included in Oita Works.

Target	Continue to sustain levels below voluntary control standard values.

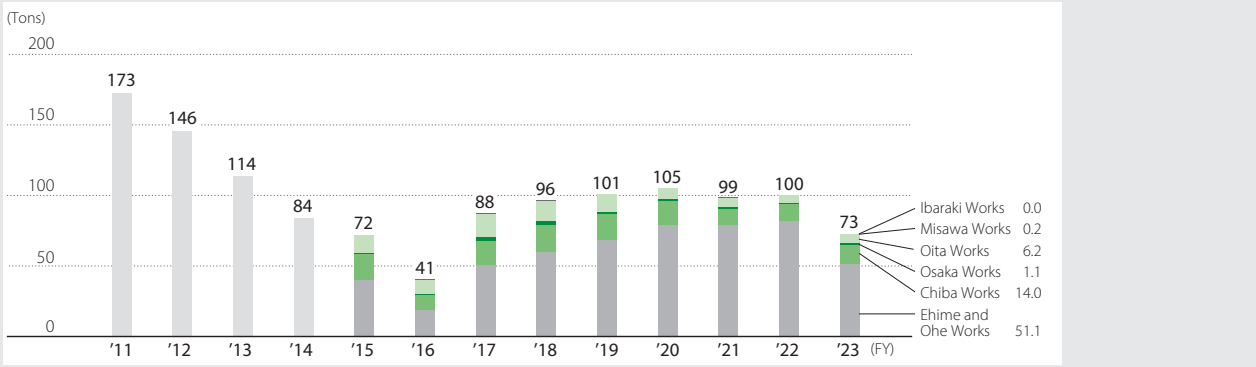
SOx Emissions (Sumitomo Chemical)



NOx Emissions (Sumitomo Chemical)



Soot and Dust Emissions (Sumitomo Chemical)



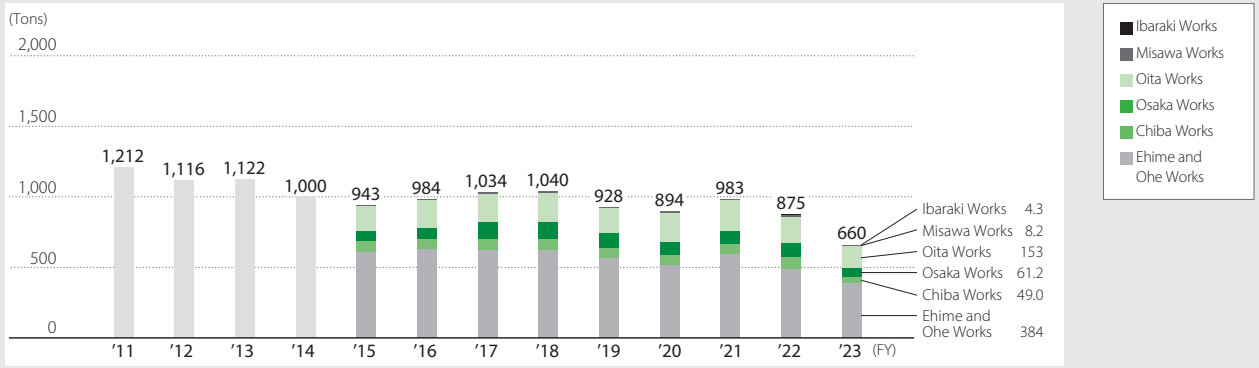
Water Emissions of COD, Nitrogen, and Phosphorus

A number of measures have been implemented to cut emissions, in line with fifth-generation Water Quality Standards, and emissions of COD, nitrogen, and phosphorus into waterways have been significantly reduced since fiscal 2004. Sumitomo Chemical has also concluded cooperative agreements with local municipal governments to establish voluntary control levels for COD, nitrogen, and phosphorus released into waterways at each Works. These standards are also stricter than those established under applicable laws and regulations.

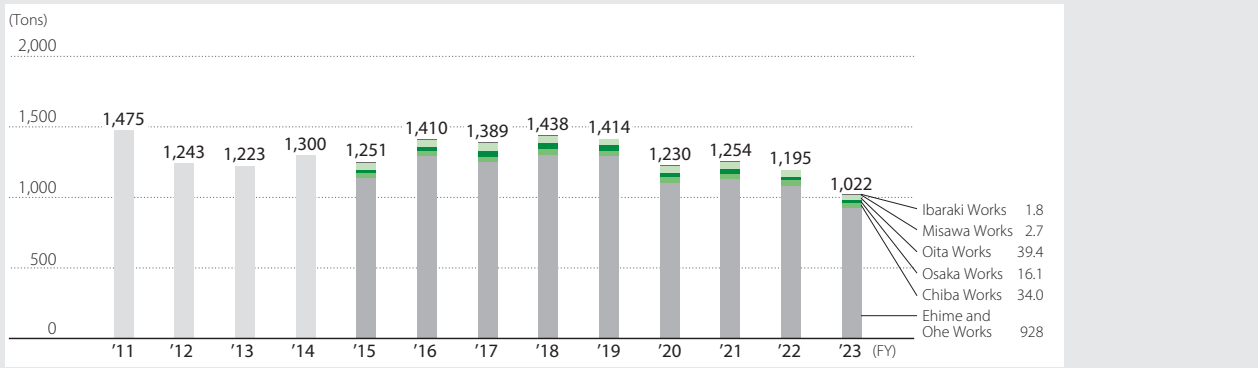
Note: Data for the Gifu Plant and Okayama Plant from fiscal 2004 to fiscal 2012 is included in Osaka Works. Data for the Gifu Plant and Okayama Plant from fiscal 2013 is included in Oita Works.

Target	Continue to sustain levels below voluntary control standard values.

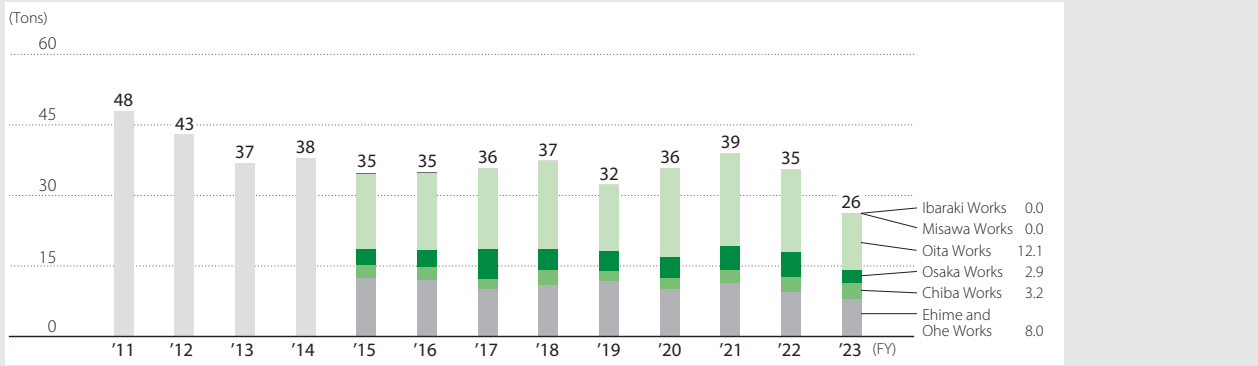
COD Emissions (water emissions include water discharge to sewage systems) (Sumitomo Chemical)



Nitrogen Emissions (Sumitomo Chemical)



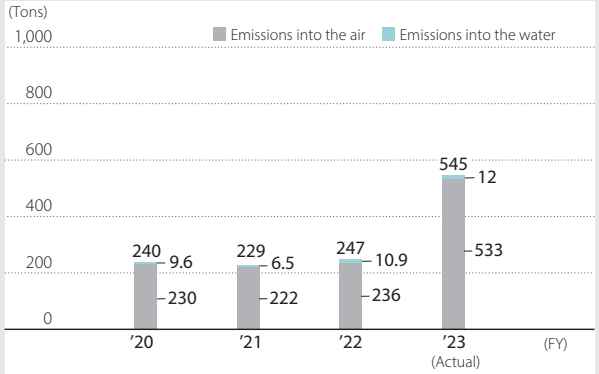
Phosphorus Emissions (Sumitomo Chemical)



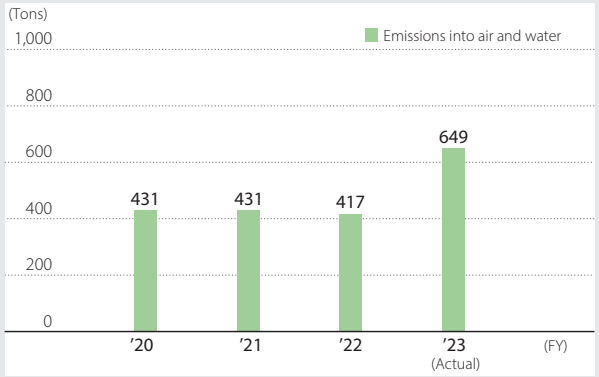
Addressing PRTR and VOCs

Trends in Emissions of Substances Subject to the PRTR Act*1

Sumitomo Chemical



Sumitomo Chemical and Group Companies in Japan



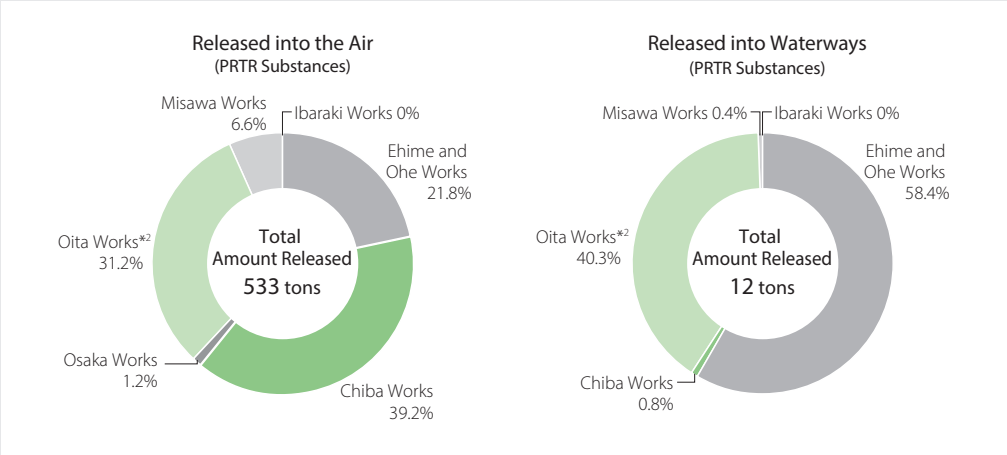
*1 The number of substances subject to the PRTR Act increased from 354 to 462 in April 1, 2023.

FY2023 Release and Transfer of PRTR Substances*1 (Sumitomo Chemical and Group Companies in Japan)

(Tons)

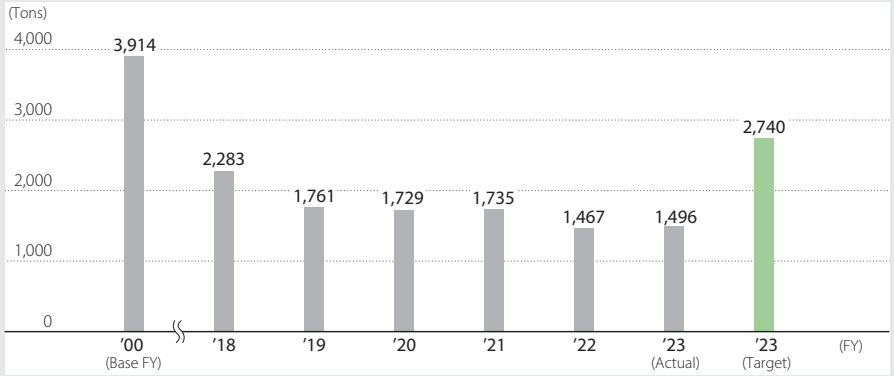
	Released			Transferred		
	Air	Water	Subtotal	Sewage	Waste	Subtotal
PRTR substances						
Sumitomo Chemical (150 substances)	533	12	545	4.2	4,145	4,149
Sumitomo Chemical and Group companies in Japan	635	14	649	6.0	6,554	6,560

FY2023 PRTR*1 Substances Released by Works (Sumitomo Chemical)



*2 Data for the Oita Works includes data for the Gifu and Okayama plants.

Initiatives to Reduce Emissions of Volatile Organic Compounds (VOCs) (Sumitomo Chemical)



Target	Maintain a 30% reduction in VOC emissions compared with fiscal 2000.
Results	Reduced emissions by 1,496 tons, or 61.8%, compared with fiscal 2000 by fiscal 2023, achieving the target.

Addressing Fluorocarbons

Calculated Emissions for Fluorocarbons (Sumitomo Chemical: All Worksites)

(tons-CO2e)

	FY2019	FY2020	FY2021	FY2022	FY2023
Calculated Emissions	9,354	4,362	5,100	5,844	4,051

Number of Refrigeration Units That Use Specified CFCs and HCFCs as Coolants (Sumitomo Chemical and Group Companies in Japan) as of the End of Fiscal 2023

(Number of Units)

	Sumitomo Chemical	Sumitomo Chemical and Group Companies in Japan
CFC11	5	5
CFC12	10	17
CFC13	0	0
CFC115	2	2
HCFC22	32	190
HCFC123	16	23
HCFC124	1	1

Target	• Eliminate the use of refrigeration units that use specified CFCs as coolants by fiscal 2025. • Eliminate the use of refrigeration units that use HCFCs as coolants by fiscal 2045.

Protecting the Atmospheric Environment

Response to the Pollutant Release and Transfer Register Ordinance (Issued on November 21, 2008)

The number of substances subject to the PRTR Act increased from 354 to 462 in April 1, 2023.

(Tons, Dioxins: mg-TEQ)

No.	Name of Chemical Compound	Amount Released					Amount Transferred		
		Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
1	Zinc compounds (water-soluble)	0.0	5.6	0.0	0.0	5.6	0.0	106.4	106.4
2	Acrylic acid and its water-soluble salts	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
3	Methyl acrylate	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
4	Acrylonitrile	3.2	0.0	0.0	0.0	3.2	0.0	0.0	0.0
5	Acrolein	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Acetaldehyde	0.1	<0.1	0.0	0.0	0.1	0.0	0.0	0.0
7	Aniline	0.7	0.0	0.0	0.0	0.7	0.0	46.0	46.0
8	2-Aminoethanol	<0.1	0.1	0.0	0.0	0.1	0.0	29.0	29.0
9	5-amino-1-[2,6-dichloro-4-(trifluoromethyl) phenyl]-3-cyano-4-[(trifluoromethyl)sulfinyl] pyrazole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	allyl alcohol	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
11	n-alkylbenzenesulfonic acid and its salts(alkyl C=10-14)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	isoprene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	O-ethyl O-(6-nitro-m-tolyl) sec-butylphosphoramidothioate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	O-ethyl O-4-nitrophenyl phenylphosphonothioate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Ethylbenzene	2.1	0.1	0.0	0.0	2.2	0.0	21.6	21.6
16	epichlorohydrin	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0
17	1,2-epoxypropane	0.0	<0.1	0.0	0.0	<0.1	0.0	0.0	0.0
18	1-octanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	cadmium and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	xylene	3.5	0.0	0.0	0.0	3.6	0.0	22.1	22.1
21	quinoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	cumene	2.2	<0.1	0.0	0.0	2.2	0.0	0.0	0.0
23	cresol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	chromium and chromium(III) compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	chromium(VI) compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	chloroethylene	21.3	0.0	0.0	0.0	21.3	0.0	0.0	0.0
27	chloroacetic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	chlorodifluoromethane	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
29	2-chloro-4,6-bis(ethylamino)-1,3,5-triazine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	3-chloropropene	1.6	0.0	0.0	0.0	1.6	0.0	17.8	17.8
31	chlorobenzene	6.2	<0.1	0.0	0.0	6.2	0.0	114.4	114.4
32	chloroform	0.4	0.0	0.0	0.0	0.4	0.0	210.2	210.2
33	2-ethoxyethyl acetate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	vinyl acetate	20.6	<0.1	0.0	0.0	20.6	0.0	0.0	0.0
35	inorganic cyanide compounds (except complex salts and cyanates)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	2-(diethylamino)ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	S-4-chlorobenzyl N,N-diethylthiocarbamate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	tetrachloromethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	1,4-dioxane	0.0	0.0	0.0	0.0	0.0	<0.1	115.7	115.7
40	Cyclohexane	39.1	0.0	0.0	0.0	39.1	0.0	<0.1	<0.1
41	cyclohex-1-ene-1,2-dicarboxi-midomethyl (1RS)-cis-trans-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	cyclohexylamine	0.0	0.1	0.0	0.0	0.1	0.0	3.6	3.6
43	1,2-dichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	1,1-Dichloroethylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	dichlorodifluoromethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	2,2-dichloro-1,1,1-trifluoroethane	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
47	1,2-dichloropropane	0.0	0.0	0.0	0.0	0.0	0.0	426.0	426.0
48	1,3-dichloropropene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	dichlorobenzene	0.0	0.0	0.0	0.0	0.0	0.0	68.8	68.8
50	dichloromethane	0.1	0.0	0.0	0.0	0.1	0.0	21.6	21.6
51	N,N-Dicyclohexylamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52	dicyclopentadiene	0.1	0.0	0.0	0.0	0.1	0.0	8.4	8.4
53	O,O-dimethyl S-1,2-bis(ethoxycarbonyl) ethyl phosphorodithioate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54	O,O-dimethyl S-(N-methylcarbamoyl) methyl phosphorodithioate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	2,4-dinitrophenol	0.0	0.0	0.0	0.0	0.0	0.0	39.4	39.4
56	2,6-di-tert-butyl-4-cresol	0.0	<0.1	0.0	0.0	<0.1	0.0	0.2	0.2

(Tons, Dioxins: mg-TEQ)

No.	Name of Chemical Compound	Amount Released					Amount Transferred		
		Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
57	1,2-dibromoethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	(RS)-O,S-dimethyl acetylphosphoramidothioate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59	N,N-dimethylacetamide	<0.1	<0.1	0.0	0.0	<0.1	0.0	10.7	10.7
60	dimethylamine	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
61	N,N-dimethylformamide	<0.1	<0.1	0.0	0.0	0.0	0.0	54.7	54.7
62	mercury and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63	hydrogenated terphenyl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64	styrene	2.1	0.0	0.0	0.0	2.1	0.0	0.0	0.0
65	selenium and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66	dioxins	<0.1	<0.1	0.0	0.0	<0.1	<0.1	0.0	<0.1
67	thiourea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68	O,O-dimethyl O-3-methyl-4-nitrophenyl phosphorothioate	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
69	tetrachloroethylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	Tetrahydrofuran	0.6	<0.1	0.0	0.0	0.7	0.0	247.3	247.3
71	tetraethylthiuram disulfide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72	terephthalic acid	0.0	0.0	0.0	0.0	0.0	0.0	314.7	314.7
73	copper salts(water-soluble, except complex salts)	0.0	<0.1	0.0	0.0	<0.1	0.0	0.0	0.0
74	sodium dodecyl sulfate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	triethylamine	0.5	0.2	0.0	0.0	0.7	0.4	29.6	30.0
76	1,1,1-trichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77	1,1,2-trichloroethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	trichloroethylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	trichlorofluoromethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	1,2,3-trichloropropane	<0.1	0.0	0.0	0.0	<0.1	0.0	8.8	8.8
81	Toluidine	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
82	toluene	73.5	0.2	0.0	0.0	73.7	0.3	1,568.8	1,569.1
83	naphthalene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84	nickel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85	nickel compounds	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
86	nitrobenzene	0.6	0.0	0.0	0.0	0.6	0.0	46.0	46.0
87	nitromethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88	arsenic and its inorganic compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
89	hydrazine	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
90	hydroquinone	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
91	4-vinyl-1-cyclohexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(Tons, Dioxins: mg-TEQ)

No.	Name of Chemical Compound	Amount Released					Amount Transferred		
		Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
92	biphenyl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93	pyridine	0.0	<0.1	0.0	0.0	<0.1	0.0	6.5	6.5
94	phenylenediamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95	phenol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96	3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97	1,3-butadiene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98	bis(2-ethylhexyl)phthalate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99	hydrogen fluoride and its water-soluble salts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	bromotrifluoromethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101	1-bromopropane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102	2-bromopropane	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.0
103	bromomethane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104	hexadecyltrimethylammonium chloride	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
105	n-hexane	10.5	<0.1	0.0	0.0	10.5	0.0	46.8	46.8
106	water-soluble salts of peroxodisulfuric acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107	benzyl chloride	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
108	benzaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
109	benzene	0.2	0.2	0.0	0.0	0.4	0.0	0.0	0.0
110	boron compounds	<0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
111	polychlorinated biphenyls	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112	poly(oxyethylene)alkyl ether(alkyl C=12-15)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	formaldehyde	0.3	<0.1	0.0	0.0	0.3	2.9	0.0	2.9
114	manganese and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	phthalic anhydride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116	Methacrylic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117	methyl methacrylate	8.9	0.0	0.0	0.0	8.9	0.0	56.7	56.7
118	(Z)-2'-methylacetophenone 4,6-dimethyl-2-pyrimidinylhydrazone	0.0	2.2	0.0	0.0	2.2	0.0	0.0	0.0
119	α-methylstyrene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	methylnaphthalene	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0
121	N-Methyl-2-pyrrolidone	7.0	0.2	0.0	0.0	7.2	0.0	217.9	217.9
122	molybdenum and its compounds	0.0	<0.1	0.0	0.0	<0.1	0.0	0.1	0.1
123	Dimethyl sulfate	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
124	triphenyl phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(Tons, Dioxins: mg-TEQ)

No.	Name of Chemical Compound	Amount Released					Amount Transferred		
		Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
125	(S)-alpha-cyano-3-phenoxybenzyl (S)-2-(4-chlorophenyl)-3-methylbutyrate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126	2-Ethylhexyl acrylate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127	Mixture of polyaddition products of oxirane to alkan-1-amine (limited to those the alkane is linear chain and C=8,10,12,14,16 or 18 and the mixture thereof), polyaddition products of oxirane to (Z)-octadec-9-en-1-amine and polyaddition products of oxirane to (9Z,12Z)-octadeca-9,12-dien-1-amine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128	alpha-Alkyl-omega-hydroxypoly(oxyethane-1,2-diyl) (limited to those the alkyl group is C=16-18 and the mixture thereof, and the number average molecular weight is less than 1,000), alpha-alkenyl-omega-hydroxypoly(oxyethane-1,2-diyl) (limited to those the alkenyl group is C=16-18 and the mixture thereof, and the number average molecular weight is less than 1,000), and the mixture thereof	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129	alpha-Alkyl-omega-hydroxypoly[oxyethane-1,2-diyl/oxy(methylethane-1,2-diyl)] (limited to mixture of those the alkyl group is branched chain and C=9-11 (limited to those the alkyl group is consists of C=10 as a major component))	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	5-Ethyl-5,8-dihydro-8-oxo-[1,3] dioxolo[4,5-g]quinoline-7-carboxylic acid (synonym: Oxolinic acid)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131	Ethylenediaminetetraacetic acid and its potassium and sodium salts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132	Octamethylcyclotetrasiloxane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133	1-(2-Chloroimidazo[1,2-a]pyridin-3-ylsulfonyl)-3-(4,6-dimethoxypyrimidin-2-yl) urea (synonym: Imazosulfuron)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134	(RS)-5-Chloro-N-(1,3-dihydro-1,1,3-trimethylisobenzofuran-4-yl)-1,3-dimethyl-1H-pyrazole-4-carboxamide (synonym: Furametpyr)	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0

(Tons, Dioxins: mg-TEQ)

No.	Name of Chemical Compound	Amount Released					Amount Transferred		
		Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
135	(E)-1-(2-Chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine (synonym: Clothianidin)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136	1,2-Dichloroethylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137	O-(2,6-Dichloro-p-tolyl) O,O-dimethyl phosphorothioate (synonym: Tolclofos-methyl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138	N-(3,5-Dichlorophenyl)-1,2-dimethylcyclopropane-1,2-dicarboximide (synonym: Procymidone)	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2
139	1,2-Dimethoxyethane	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
140	O-4-Cyanophenyl O,O-dimethyl thiophosphate (synonym: Cyanophos or CYAP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141	Trimethylbenzene	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
142	Lead and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143	Paraformaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144	N,N-Bis(2-hydroxyethyl)alkanamide (limited to those the alkane is linear chain and C=8, 10, 12, 14, 16 or 18 and mixture thereof), (Z)-N,N-bis(2-hydroxyethyl)octadec-9-enamide and (9Z,12Z)-N,N-bis(2-hydroxyethyl) octadeca-9,12-dienamide and mixture thereof	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	(1-Hydroxyethane-1,1-diyl)diphosphonic acid and its potassium salt and sodium salt	0.0	2.2	0.0	0.0	2.2	0.0	0.0	0.0
146	1-Hexene	127.5	0.0	0.0	0.0	127.5	0.0	0.0	0.0
147	Heptane	51.9	<0.1	0.0	0.0	51.9	0.0	67.9	67.9
148	Acetic anhydride	1.0	0.0	0.0	0.0	1.0	0.0	42.3	42.3
149	Methyl isobutyl ketone	142.0	0.1	0.0	0.0	142.1	0.1	150.5	150.6
150	2-(2-Methoxyethoxy)ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		533	12	0.0	0.0	545	3.8	4,140	4,144

Waste Reduction

PCB Waste (Sumitomo Chemical and Group Companies in Japan)

Storage and Control of High Concentrations of PCB Waste as of the End of Fiscal 2023

	Number of units of PCB waste			Volume of PCBs (kl)
	Total	Storage	Usage	
Sumitomo Chemical	0	0	0	0
Sumitomo Chemical and Group Companies in Japan	0	0	0	0

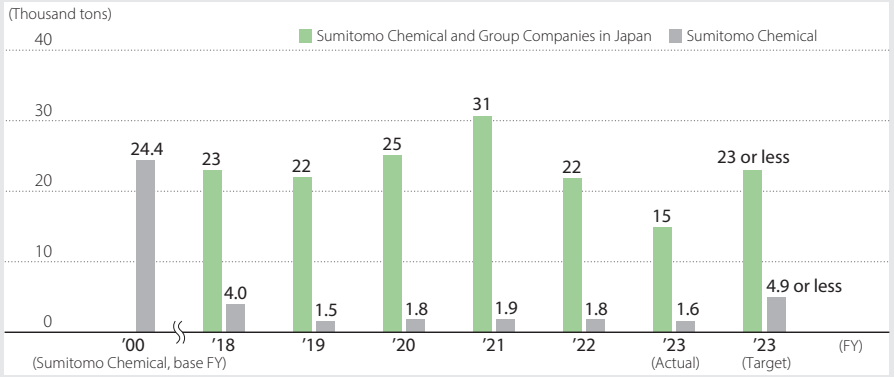
Note: The volume of PCBs does not include minute amounts of PCB waste in the PCB net conversion amount. High concentrations of PCBs in such classes of materials as fluorescent lamps, mercury lamp ballast, and contaminated substances (wastepaper, etc.) fall outside the scope of collation.

Target	Properly collect and store high-concentration PCB-containing waste and complete treatment of this waste at an early date.
Results	Sumitomo Chemical: As of March 31, 2021, the treatment of all high-concentration PCB-containing waste that had been stored and used has been completed. Group companies in Japan: As of March 31, 2022, the treatment of all high-concentration PCB-containing waste that had been stored and used has been completed.

In accordance with the Act on Special Measures against PCB Waste, Sumitomo Chemical properly collects high-concentration polychlorinated biphenyl (PCB)-containing waste.* The Company then stores this industrial waste, which is subject to special controls, in specified areas within the Company's waste storage facilities, subsequently ensuring strict control of this waste. Sumitomo Chemical completed treatment of all of its PCB-containing waste ahead of the legally prescribed deadline.

* Transformers, capacitors, and other electronic devices that contain PCB insulating oil.

Landfill Disposal Amount (Sumitomo Chemical and Group Companies in Japan)



Target	Sumitomo Chemical: Maintain landfill disposal amount of no more than 4.9 thousand tons, 80% less than the fiscal 2000 levels. Sumitomo Chemical and Group Companies in Japan: Maintain landfill disposal amount of no more than 23 thousand tons, less than the fiscal 2020 levels.
Results	Sumitomo Chemical, Sumitomo Chemical and Group companies in Japan all achieved the target.

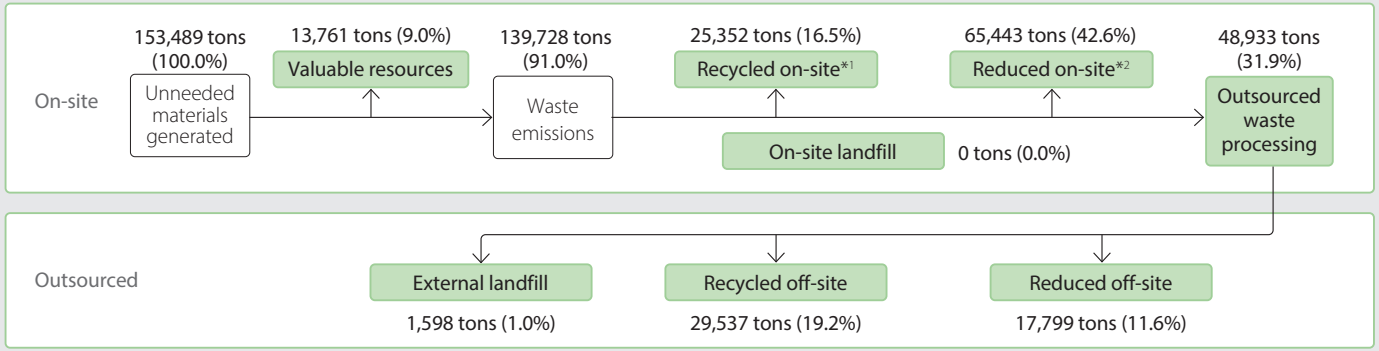
Digitization of Manifests to Be Prepared Pursuant to the Waste Management and Public Cleansing Act (Sumitomo Chemical)

	Number of manifests issued	Number of manifests digitized	Digitization rate (%)
FY2016	19,868	19,594	99
FY2017	19,858	19,585	99
FY2018	20,598	20,355	99
FY2019	19,835	19,726	99
FY2020	20,735	20,675	99
FY2021	23,027	22,961	99
FY2022	22,196	22,179	99
FY2023	20,423	20,409	99

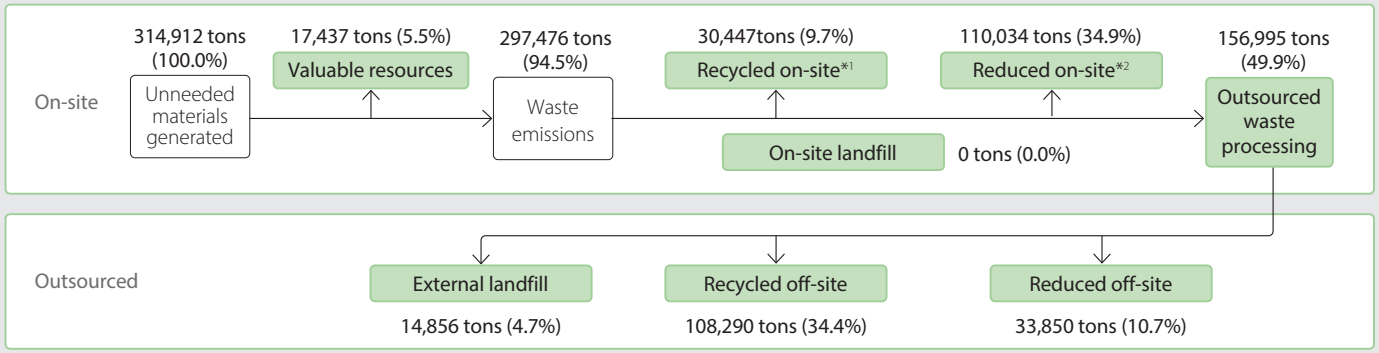
Sumitomo Chemical has been fostering the digitization of manifests to improve operational efficiency and ensure compliance with the law and transparency of data.

Waste Disposal Flow Chart and FY2023 Results

(Sumitomo Chemical)



(Sumitomo Chemical and Group Companies in Japan)



Note: The waste amount for Sumitomo Chemical and Group companies in Japan accounts for around 80% of the entire Group total, which includes overseas Group companies.

*1 Recycled waste: Total amount of waste that was reused, recycled, or thermally recycled

*2 Reduced waste: Total amount of waste reduced through incineration, etc.

FY2023 Results by Item in Connection with the Disposal of Waste (Sumitomo Chemical)

(Tons)

Type	Waste emissions	Recycled on-site		Reduced on-site		Outsourced waste processing	On-site landfill	Reduced off-site	Recycled off-site		External landfill	Valuable resources
		Reused, recycled	Thermally recycled	Incineration	Other				Reused, recycled	Thermally recycled		
Burnt residue	4,855.4	0.0	0.0	0.2	0.0	4,855.2	0.0	0.0	4,380.5	0.0	474.7	0.0
Sludge	40,427.9	0.1	7,045.1	15,839.6	1,826.1	15,717.0	0.0	4,431.7	10,515.4	439.9	329.8	0.0
Oil waste	33,539.3	2,863.5	8,933.2	10,499.2	0.0	11,243.4	0.0	5,350.9	4,869.8	870.0	152.9	204.0
Waste acid	6,807.0	0.0	1.9	4,506.8	783.0	1,515.2	0.0	1,337.3	108.4	37.4	32.1	537.9
Waste alkali	46,041.3	6,104.8	19.6	30,548.1	0.0	9,368.7	0.0	5,750.1	2,773.6	690.8	154.1	63.0
Waste plastic	4,420.6	0.0	329.8	529.0	0.0	3,561.7	0.0	477.0	2,560.2	210.7	314.3	6,030.4
Waste paper	997.4	0.0	53.7	810.0	0.0	133.7	0.0	0.8	132.9	0.0	0.0	178.8
Wood waste	820.2	0.0	0.0	100.7	0.0	719.4	0.0	37.0	397.0	284.1	1.4	5.6
Textile waste	5.3	0.0	0.0	0.0	0.0	5.3	0.0	4.5	0.8	0.0	0.0	0.0
Animal and plant residues	8.3	0.0	0.0	0.0	0.0	8.3	0.0	8.3	0.0	0.0	0.0	0.0
Metal waste	1,023.7	0.0	0.0	0.2	0.0	1,023.4	0.0	111.7	902.3	0.0	9.4	3,318.5
Glass and pottery waste	440.2	0.0	0.0	0.0	0.0	440.2	0.0	53.3	309.8	53.3	23.8	0.0
Slag	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debris	317.1	0.0	0.0	0.0	0.0	317.1	0.0	236.1	0.0	0.0	81.0	0.0
Soot and dust	24.4	0.0	0.0	0.0	0.0	24.4	0.0	0.0	0.0	0.0	24.4	3,422.9
Total	139,728	8,968	16,384	62,834	2,609	48,933	0	17,799	26,951	2,586	1,598	13,761

(Sumitomo Chemical and Group Companies in Japan)

(Tons)

Type	Waste emissions	Recycled on-site		Reduced on-site		Outsourced waste processing	On-site landfill	Reduced off-site	Recycled off-site		External landfill	Valuable resources
		Reused, recycled	Thermally recycled	Incineration	Other				Reused, recycled	Thermally recycled		
Burnt residue	8,238.1	0.0	0.0	0.2	0.0	8,238.0	0.0	2.2	6,535.8	1.0	1,699.0	0
Sludge	81,384.6	0.1	7,045.1	15,839.6	35,630.4	22,869.4	0.0	8,369.1	11,733.1	770.4	1,996.6	83
Oil waste	41,556.2	2,884.5	14,007.2	10,499.2	0.0	14,165.4	0.0	6,623.0	5,419.7	1,960.9	162.1	818
Waste acid	8,589.8	0.0	1.9	4,506.8	783.0	3,298.1	0.0	2,056.8	329.9	867.7	43.8	538
Waste alkali	68,398.8	6,104.8	19.6	41,334.8	0.0	20,939.5	0.0	15,028.8	3,776.4	1,852.2	282.0	63
Waste plastic	8,279.8	0.0	329.8	529.0	0.0	7,421.0	0.0	1,096.7	4,809.9	587.0	927.9	7,893
Waste paper	1,878.0	0.0	53.7	810.0	0.0	1,014.3	0.0	128.7	873.3	1.7	10.6	711
Wood waste	1,090.2	0.0	0.0	100.7	0.0	989.5	0.0	66.2	596.8	322.0	4.5	6
Textile waste	5.3	0.0	0.0	0.0	0.0	5.3	0.0	4.5	0.8	0.0	0.0	0
Animal and plant residues	11.6	0.0	0.0	0.0	0.0	11.6	0.0	8.3	0.0	3.4	0.0	0
Metal waste	1,147.8	0.0	0.0	0.2	0.4	1,147.2	0.0	161.5	967.3	0.6	17.8	3,870
Glass and pottery waste	502.0	0.0	0.0	0.0	0.0	502.0	0.0	68.0	324.9	56.1	53.0	1
Slag	25.2	0.0	0.0	0.0	0.0	25.2	0.0	0.0	0.0	0.0	25.2	0
Debris	580.8	0.0	0.0	0.0	0.0	580.8	0.0	236.1	0.9	0.0	343.8	0
Soot and dust	75,787.4	0.0	0.0	0.0	0.0	75,787.4	0.0	0.0	66,498.0	0.0	9,289.4	3,454
Total	297,476	8,989	21,457	73,620	36,414	156,995	0	33,850	101,867	6,423	14,856	17,437

FY2023 Categories of Hazardous* and Non-Hazardous Waste

(Sumitomo Chemical)

(Tons)

Type	Waste emissions	Recycled on-site		Reduced on-site		Outsourced waste processing	On-site landfill	Reduced off-site	Recycled off-site		External landfill
		Reused, recycled	Thermally recycled	Incineration	Other				Reused, recycled	Thermally recycled	
Non-Hazardous Waste	53,340	0	7,429	17,280	1,826	26,806	0	5,361	19,199	988	1,259
Hazardous Waste	86,388	8,968	8,955	45,554	783	22,127	0	12,438	7,752	1,598	339

(Sumitomo Chemical and Group Companies in Japan)

(Tons)

Type	Waste emissions	Recycled on-site		Reduced on-site		Outsourced waste processing	On-site landfill	Reduced off-site	Recycled off-site		External landfill
		Reused, recycled	Thermally recycled	Incineration	Other				Reused, recycled	Thermally recycled	
Non-Hazardous Waste	178,931	0	7,429	17,280	35,631	118,592	0	10,141	92,341	1,742	14,368
Hazardous Waste	118,545	8,989	14,029	56,341	783	38,403	0	23,709	9,526	4,681	488

* Waste oil (including waste organic solvents), alkaline waste, acidic waste

Initiatives to Recycle and Reuse Plastic and Other Waste

Sumitomo Chemical is proactively working to recycle and reuse plastic and other waste.

Results of Recycling and Reusing Waste*1

(Sumitomo Chemical)

(Tons)

	2018	2019	2020	2021	2022	2023
Waste emissions	171,683	165,011	164,492	189,499	174,602	139,728
Amount internally reused	40,772	7,450	6,383	16,602	16,906	8,968
Amount of internally recovered heat	16,480	24,179	23,382	28,798	22,324	16,384
Outsourced waste processing	51,827	49,597	53,515	65,471	55,356	48,933
Amount externally reused	30,209	30,094	31,334	38,584	32,010	26,951
Amount of externally recovered heat	2,610	3,212	3,617	3,223	4,436	2,586
Non-consolidated recycling and reuse rate (%)	52.5	39.4	39.3	46.0	43.3	39.3

(Sumitomo Chemical and Group Companies in Japan)

(Tons)

	2018	2019	2020	2021	2022	2023
Waste emissions	368,837	364,614	377,062	446,397	405,298	297,476
Amount internally reused	24,832	36,485	33,711	49,003	16,922	8,989
Amount of internally recovered heat	0	0	0	0	27,032	21,457
Outsourced waste processing	244,450	231,563	247,908	276,071	232,013	156,995
Amount externally reused	194,098	189,338	195,737	213,309	173,416	101,867
Amount of externally recovered heat	0	0	0	0	9,903	6,423
Consolidated recycling and reuse rate in Japan (%)	59.4	61.9	60.9	58.8	56.1	46.6

*1 Amount of waste recycled and reused: Amount internally and externally reused + Amount of internally and externally recovered heat
Waste recycling and reuse rate: (Amount internally and externally reused + Amount of internally and externally recovered heat) / Waste emissions

Results of Recycling and Reusing Plastic Waste*2

(Sumitomo Chemical)

(Tons)

	2018	2019	2020	2021	2022	2023
Waste emissions	5,495	4,881	5,295	5,933	5,407	4,421
Amount internally reused	0	0	0	0	0	0
Amount of internally recovered heat	160	150	273	437	321	330
Outsourced waste processing	4,235	3,983	4,184	4,788	4,449	3,562
Amount externally reused	3,130	2,918	2,923	3,473	3,317	2,560
Amount of externally recovered heat	99	82	47	110	270	211
Non-consolidated recycling and reuse rate (%)	61.7	64.5	61.2	67.8	72.3	70.1

(Sumitomo Chemical and Group Companies in Japan)

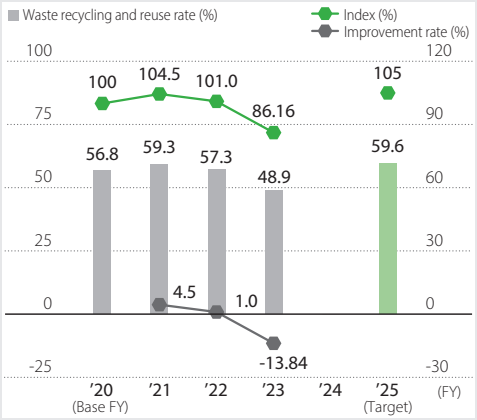
(Tons)

	2020	2021	2022	2023
Waste emissions	8,386	9,856	9,415	8,280
Amount internally reused	37	35	0	0
Amount of internally recovered heat	273	437	321	330
Outsourced waste processing	7,203	8,644	8,458	7,421
Amount externally reused	4,502	5,296	5,569	4,810
Amount of externally recovered heat	464	622	688	587
Consolidated recycling and reuse rate in Japan (%)	62.9	64.8	69.9	69.2

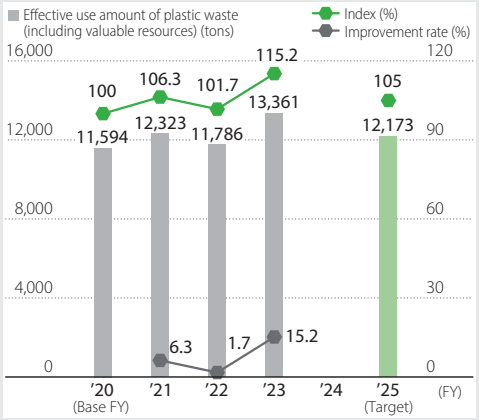
*2 Amount of plastic recycled and reused: Amount internally and externally reused + Amount of internally and externally recovered heat
Plastic recycling and reuse rate: (Amount internally and externally reused + Amount of internally and externally recovered heat) / Waste emissions

Common Environmental Protection and Management Targets (Japan)

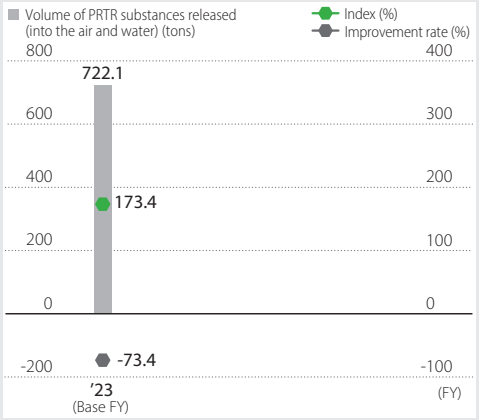
Waste recycling and reuse rate*1 (2020 = 100)



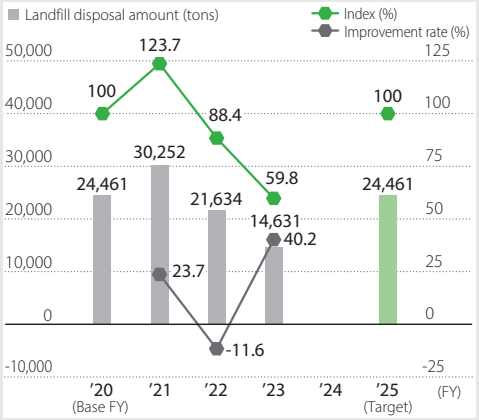
Effective Use Amount of Plastic Waste (including valuable resources)*2 (2020 = 100)



Volume of PRTR Substances Released (into the Air and Water) and PRTR Substance Emissions Indices (2023 = 100)



Landfill Disposal Amount and Landfill Disposal Indices (2020 = 100)



Improve the waste recycling and reuse rate

Target	Improve by 5% or more relative to fiscal 2020 by fiscal 2025.
Results	Worsened 13.8% relative to fiscal 2020 in fiscal 2023

*1 Waste recycling and reuse rate : (amount internally and externally reused + Amount of internally and externally recovered heat) /Waste emissions ×100

Improve the effective use amount of plastic waste

Target	Improve by 5% or more relative to fiscal 2020 by fiscal 2025.
Results	Improved by 15.2% relative to fiscal 2020 in fiscal 2023

*2 Effective use amount of plastic waste (including valuable resources) = (amount of valuable resources) + (amount of internally recycled and reused waste + amount of internally recovered waste heat) + (amount of externally recycled and reused waste + amount of externally recovered waste heat)

Reduction of volume of PRTR substances released

Target	Maintain emissions at or below the fiscal 2023*3
Results	—

*3 The new target will be set after fiscal 2023 to comply with the act's revision on April 1, 2023, which increased the number of subject substances from 354 to 462.

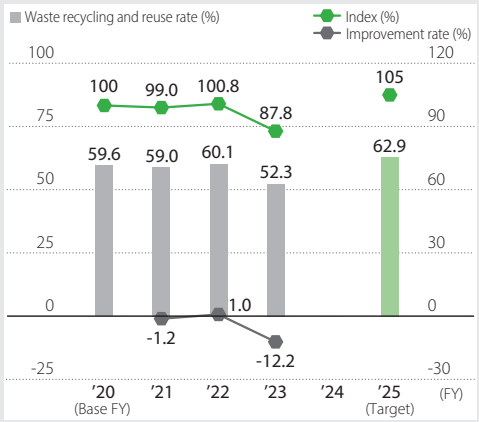
Reduction of landfill disposal amount

Target	Maintain landfill disposal amount at or below fiscal 2020 levels.
Results	The amount in fiscal 2023 decreased by 40.2% compared with fiscal 2020, achieving the target.

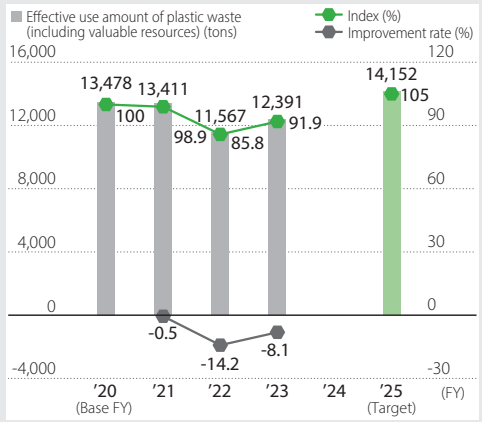
Note: **Sumitomo Chemical and the 17 Group companies in Japan listed below are included in the boundary of calculation.**
Sumika-Kakoushi Co., Ltd.; Sumika Color Co., Ltd.; Sumika Plastech Co., Ltd.; Nippon A&L Inc.; Asahi Chemical Co., Ltd.; Ceratec Co., Ltd.; SanTerra Co., Ltd.; Sumika Agro Manufacturing Co., Ltd.; Sumika Assembly Techno Co., Ltd.; SC Environmental Science Co., Ltd.; Sumika Agrotech Co., Ltd.; Nihon Medi-Physics Co., Ltd.; Sumitomo Joint Electric Power Co., Ltd.; SN Kasei Co., Ltd.; Sumika Polycarbonate Ltd.; Sanritz Corporation; and Sumika Kowa Tech Co., Ltd.

Common Environmental Protection and Management Targets (Overseas)

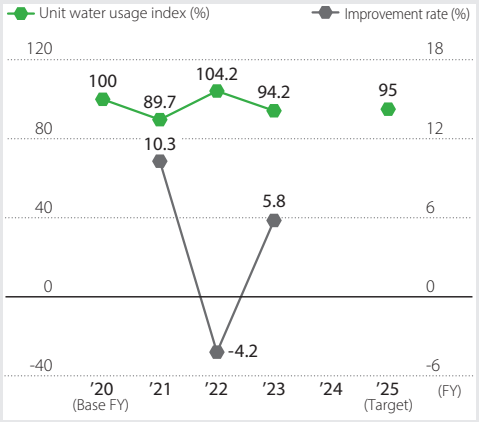
Waste recycling and reuse rate*1 (2020 = 100)



Effective Use Amount of Plastic waste (including valuable resources)*2 (2020 = 100)



Unit Water Usage Indices (2020 = 100)



Improve the waste recycling and reuse rate

Target	Improve by 5% or more relative to fiscal 2020 by fiscal 2025.
Results	Worsened 12.2% relative to fiscal 2020 in fiscal 2023

*1 Waste recycling and reuse rate : (amount internally and externally reused + Amount of internally and externally recovered heat) /Waste emissions ×100

Improve the effective use amount of plastic waste

Target	Improve by 5% or more relative to fiscal 2020 by fiscal 2025.
Results	Worsened 8.1% relative to fiscal 2020 in fiscal 2023

*2 Effective use amount of plastic waste (including valuable resources) = (amount of valuable resources) + (amount of internally recycled and reused waste + amount of internally recovered waste heat) + (amount of externally recycled and reused waste + amount of externally recovered waste heat)

Improvement in Unit Water Usage Indices

Target	Improve unit water usage indices by at least 1% annually on average.
Results	Improved by 5.8% relative to fiscal 2020 in fiscal 2023, achieving the target.

Note: **The following 29 Group companies overseas are included in the boundary of calculation:**

Singapore	• The Polyolefin Company (Singapore) Pte.Ltd. • Sumitomo Chemical Asia Pte Ltd (MMA&S-SBR)
Thailand	• Bara Chemical Co., Ltd. • Sumika Polymer Compounds (Thailand) Co., Ltd.
Vietnam	• Sumika Electronic Materials Vietnam Co., Ltd.
China	• Dalian Sumika Chemphy Chemical Co., Ltd. • Sumika Electronic Materials (Wuxi) Co., Ltd. • Sumika Electronic Materials (Hefei) Co., Ltd. • Sumika Huabei Electronic Materials (Beijing) Co., Ltd. • Sumika Electronic Materials (Xi'an) Co., Ltd. • Zhuhai Sumika Polymer Compounds Co., Ltd. • Dalian Sumika Jingang Chemicals Co., Ltd. • Sumika Electronic Materials (Changzhou) Co., Ltd. • Xuyou Electronic Materials (Wuxi) Co., Ltd. • Sumika Electronic Materials (Chongqing) Co., Ltd.
Taiwan	• Sumika Technology Co., Ltd. • Sumipex Techsheet Co., Ltd.
India	• Sumika Polymer Compounds India Co., Ltd.
South Korea	• Dongwoo Fine-Chem Co., Ltd. • SSLM Co., Ltd.
Australia	• Botanical Resources Australia Manufacturing Services Pty Ltd. • Botanical Resources Australia Agricultural Services Pty Ltd.
United States	• Sumitomo Chemical Advanced Technologies LLC • McLaughlin Gormley King Company • Valent BioSciences LLC • Sumika Polymer North America LLC
United Kingdom	• Sumika Polymer Compounds UK Co., Ltd.
Turkey	• Sumika Polymer Compounds Turkey Co., Ltd.
France	• Sumika Polymer Compounds France Co., Ltd.

Environmental Management System

Between 1997 and 2001, ISO 14001:1996 certification was obtained at all Works and continually maintained thereafter. Updated ISO 14001 certification was obtained later and all Works have been inspected on a continual basis to ensure the certification does not expire.

Acquisition of ISO 14001 Certification

1. Sumitomo Chemical (Acquisition Rate: 100%)

Works	Certificate Number	Certification Expiration Date
Ehime Works (including Ohe Works)	JCQA-E-0018	April 12, 2025
Chiba Works (including the SCIOCS Chiba Facility)	(KHK-)97ER・004	June 25, 2027
Osaka Works	JQA-E-90072	November 27, 2024
Oita Works (Gifu Plant)	JCQA-E-0206	December 24, 2024
Oita Works (Okayama Plant)	JCQA-E-0218	January 21, 2025
Oita Works	JQA-E-90152	March 30, 2025
Misawa Works	JQA-EM0355	December 12, 2025
Ibaraki Works	EC15J0024	March 24, 2027

2. Group Companies In Japan

Companies	Certificate Number	Certification Expiration Date
Sumika-Kakoushi Co., Ltd.	JCQA-E-0532	January 12, 2025
Nippon A&L Inc. (Ehime Works)	ISO14001—0076790	January 3, 2025
Nippon A&L Inc. (Chiba Works)	(KHK-)97ER・004	June 25, 2027
Asahi Chemical Co., Ltd.	JUSE-EG-717	February 26, 2027
Ceratec Co., Ltd.	JCQA-E-0018	April 12, 2025
Sumika Assembly Techno Co., Ltd.	JCQA-E-0018	April 12, 2025
Sumika Agro Manufacturing Co., Ltd. (Ehime Fertilizers Works)	JCQA-E-0018	April 12, 2025
Sumika Agro Manufacturing Co., Ltd. (Other Works)	13ER・925	August 5, 2027
Koei Chemical Co., Ltd.	JCQA-E-0969	March 11, 2026
Taoka Chemical Co., Ltd. (Ehime Works)	JCQA-E-0018	April 12, 2025
Taoka Chemical Co., Ltd. (Yodogawa Works)	JQA—EM3938	November 27, 2024
Tanaka Chemical Corporation	4526844	July 25, 2026
Sumitomo Pharma Co., Ltd. (Suzuka Works)	00ER-094	December 21, 2024
Sumitomo Pharma Co., Ltd. (Oita Works)	JQA-E-90152	March 30, 2025
Sumika Polycarbonate Limited	JCQA-E-0436	December 23, 2026
SANRITZ Co., Ltd.	JMAQA-E105	April 26, 2027
Sumika Kowa Tech Co., Ltd.	EMS 601582	December 26, 2025

3. Overseas Group Companies

Companies	Certificate Number	Certification Expiration Date
Bara Chemical Co., Ltd.	24120907002	August 29, 2027
SSLM Co., Ltd.	EAC-0617801	May 7, 2027
Sumitomo Chemical India Private Limited (Tarapur plant)	IND.23.5072/IM/U	April 2, 2026
Sumitomo Chemical India Private Limited (Vapi plant)	EMS 740097	March 9, 2027
Sumitomo Chemical India Private Limited (Bhavnaga Plant)	99 104 00704/02	October 10, 2024
Sumitomo Chemical India Private Limited (Gajod Plant)	99 104 00704/03	October 10, 2024
Sumitomo Chemical India Private Limited (Silvassa Plant)	99 104 00704/04	May 13, 2027
Sumitomo Chemical Advanced Technologies LLC	43631-2008-AE-USA-ANAB	June 2, 2026
Sumika Technology Co., Ltd.	EMS 89814	December 26, 2024
Dongwoo Fine-Chem Co., Ltd. (Pyeongtaek)	EAC-06003	July 9, 2024
Dongwoo Fine-Chem Co., Ltd. (Iksan)	KR15/02363	July 14, 2026
Dongwoo Fine-Chem Co., Ltd. (Samki)	KR20/81826429	August 22, 2025
Sumika Electronic Materials (Xi'an) Co., Ltd.	CN15/10718	September 8, 2024
Sumika Huabei Electronic Materials (Beijing) Co., Ltd.	19919E00003ROM	January 3, 2025
Sumika Electronic Materials (Wuxi) Co., Ltd.	64188-2009-AE-RCG-RVA	October 30, 2024
Sumika Electronic Materials (Changzhou) Co., Ltd.	CN20/10228	May 19, 2026
XUYOU Electronic Materials (Wuxi) Co., Ltd.	00220E34370R0M	December 24, 2026
Sumika Electronic Materials (Chongqing) Co., Ltd.	CN15/21719	December 6, 2024
Sumika Polymer Compounds (Thailand) Co., Ltd.	66 104 130035	September 9, 2025
Sumitomo Chemical Asia Pte Ltd (MMA plant)	10369744	June 30, 2027
Sumitomo Chemical Asia Pte Ltd (S-SBR plant)	SCS 102718EI	September 8, 2024
The Polyolefin Company (Singapore) Pte. Ltd.	SG05/00847	May 14, 2026
Zhuhai Sumika Polymer Compounds Co., Ltd.	CN13/30779	August 19, 2025
Sumika Polymer Compounds Dalian Co., Ltd.	CN14/10103	March 25, 2026

Note: Surveys are conducted once per year, and the above list is based on the survey results as of March 31, 2024

Energy Management System

Acquisition of ISO 50001 Certification

Works	Certificate Number	Certification Expiration Date
Dongwoo Fine-Chem Co., Ltd. (Pyeongtaek)	EN-0632901	October 13, 2025