

## **1** Climate Change Mitigation and Adaptation

**Reducing Greenhouse Gas Emissions** 

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

								(Thousan	id tons of CO2e)
		FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
CO2	Energy sources	2,559	2,405	2,454	2,543	2,722	2,645	2,549	2,537
	From other than energy use	55	50	93	155	142	157	146	137
Methane (CH4)		-	-	-	_	-	_	_	—
Nitrous c	oxide (N2O)	65	45	35	23	15	20	22	22
Hydroflu	orocarbon (HFC)	—	_	—	—	4	4	—	—
Perfluorocarbon (PFC)		—	_	—	—	_	_	—	—
Sulfur hexafluoride (SF6)		—	-	-	—	_	_	—	—
Nitrogen trifluoride (NF3)		_	_	—	—	_	—	_	—

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

## **Environmental Activities: Supplementary Data**

## **Energy Saving**

#### FY2022 Breakdown of Unit Energy Consumption (Sumitomo Chemical)

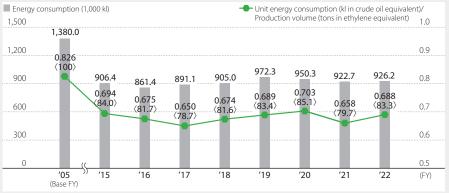
	Energy consumption (1,000 kl in crude oil equivalent) (a)	Production (1,000 tons in ethylene equivalent) (b)	Unit energy consumption (a/b)
Fhime Works	471	698	0.674
	329	390	0.845
Osaka Works	23	17	1.330
Oita Works*	61	62	0.970
Misawa Works	11	12	0.989
Ohe Works	31	168	0.183
Total	926	1,347	0.688 <83.3% compared with FY2005>

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 6 thousand kl (crude oil equivalent), 17 thousand m<sup>2</sup>, and 0.343, respectively. \* Data for the Oita Works includes data for the Gifu and Okayama plants.

#### Energy Consumption and Unit Energy Consumption (Sumitomo Chemical)



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.

	Energy consumption totaled 926.2 thousand kl in crude oil equivalent in
FY2022	fiscal 2022.
Results	In fiscal 2022, unit energy consumption worsened 4.6% compared with
	fiscal 2021 and improved 16.7% compared with fiscal 2005.

#### FY2022 Energy Consumption and CO2 Emissions (Sumitomo Chemical and Group Companies in Japan: All Worksites)

	Energy consumption (1,000 kl in crude oil equivalent)	CO2 emissions from energy use (1,000 tons)
Sumitomo Chemical	0/15	2 5 3 7
Works	932	2,513
Non-manufacturing sites including the Head Offices and Research Laboratories	13	24
Sumitomo Chemical and Group companies in Japan	1,638	4,667
Works	1,607	4,613
Non-manufacturing sites including the Head Offices and Research Laboratories	31	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 is the same as that for the companies listed on page 3 and covers major consolidated Group companies, accounting for 99.8% of Sumitomo Chemical's consolidated net sales.

EContents



**Environmental Activities: Supplementary Data** 

★ : Assured by an independent assurance provider

## **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).

(Thousand kl)

FY2022

1.634

usand tons)

FY2020–2022 Environmental Performance (Sumitomo Chemical and Group Companies in Japan)

**INPUT** Energy and Resources



			(Million ton:
	FY2020	FY2021	FY2022
Industrial water	70.2	70.5	69.5
Drinking water	0.8	0.9	0.8
Seawater	884	862	763
Groundwater	26.8	25.5	26.3
Other water	2.6	2.7	2.5
Total	984	962	863





		(1	nousand ton:
	FY2020	FY2021	FY2022
Hydrocarbon compounds	1,704	1,713	1,684
Metals (excluding minor metals)*2	90.2	115	104
Minor metals*3	12.5	17.4	16.2

FY2020

1.767

FY2021

1.801

#### PCB/CFCs under Secure Storage

	FY2020	FY2021	FY2022
No. of electrical devices containing high concentrations of PCBs*4	11	0	0
PCB volume (pure equivalent) (kl)*4	0.1	0	0
No. of refrigeration units using specified CFCs as a coolant	37	27	20
No. of refrigeration units using HCFCs as a coolant	255	286*5	277

Note: The number of companies included in the boundary of calculation for the environmental performance data on page 134 is as follows for each year.

FY2020: Sumitomo Chemical and Group companies in Japan: 22 companies

Fuel, heat, and electricity\*1

FY2021: Sumitomo Chemical and Group companies in Japan: 23 companies

FY2022: Sumitomo Chemical and Group companies in Japan: 22 companies

\*1 From fiscal 2017, the energy (calculated as kl of crude oil) indices were calculated based on the GHG Protocol (refer to page 238 "Calculation Standards for Environmental and Social Data Indicators").

• With the disclosure of our GHG emissions based on the GHG Protocol standards, we now include the following data previously excluded from calculations: amount of energy used to produce power and steam sold to external parties by Sumitomo Chemical and Group companies in Japan (the portion attributable to energy provider subsidiaries was included in years prior to fiscal 2016). In addition, the amount of energy used by Sumitomo Chemical's non-production sites is included from fiscal 2017, and the amount of energy used by the non-production sites of Group companies in Japan is included from fiscal 2018. From fiscal 2018, the boundary of calculation has been expanded to include principal consolidated Group companies in Japan, which account for up to 99.8% of consolidated net sales.

\*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.

\*5 Following a detailed analysis, data for fiscal 2021 was retroactively revised.

Sustainability Management Governance Environment Society



🖵 Environmental Activities: Supplementary Data



## **Environmental Activities: Supplementary Data**

★ : Assured by an independent assurance provider

#### **OUTPUT** Product Manufacturing and Environmental Impact



Water Pollutant Emissions

			(Τ	'housand tons)
		FY2020	FY2021	FY2022*
	l on the basis of production)*1	2,526	2,613	2,413
				(Tana)
				(Tons)
		FY2020	FY2021	FY2022*
COD	Coastal waters/waterways	874	960	825
COD	Sewer systems	168	207	175
Dhaanharu	Coastal waters/waterways	34.7	36.1	32.0
Phosphorus	Sewer systems	4.9	5.9	6.1
N Data and a second	Coastal waters/waterways	1,281	1,303	1,236
Nitrogen	Sewer systems	48.1	FY2021 2,613 FY2021 960 207 36.1 5.9	47.8
Substances	subject to the PRTR Act	11.7	11.1	13.3





			(Million tons)
	FY2020	FY2021	FY2022
Total amount of water discharge	947	920	809
Note: Includes seawater emissions of Sumi	itomo Joint E	Electric Powe	er Co., Ltd.

		Τ)	housand tons)
	FY2020	FY2021	FY2022*
Waste emissions*2	248	276	232
Landfill*2	25.1	30.7	21.9
(Breakdown)			
On-site landfill	0	0	0
External landfill	25.1	30.7	21.9

Note: The number of companies included in the boundary of calculation for the environmental performance data on page 135 is as follows for each year.

FY2020: Sumitomo Chemical and Group companies in Japan: 22 companies FY2021: Sumitomo Chemical and Group companies in Japan: 23 companies

FY2022: Sumitomo Chemical and Group companies in Japan: 22 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.

(Thousand tons of CO2e)

EContents

**Environmental Activities: Supplementary Data** 



## **Environmental Activities: Supplementary Data**

★ : Assured by an independent assurance provider

Atmospheric
Emissions

Others

	FY2020	FY2021	FY2022
Greenhouse gases (seven gases)*1	6,072	6,241	5,418
Emissions from energy use (CO2)	5,312	5,435	4,639
CO2 emissions from other than energy use	661	655	633
CH4	—	6	6
N2O	94	143	137
HFC	4	2	3
PFC		—	_
SF6			
NF3		_	_
			(Tor
	FY2020	FY2021	FY2022
NOx	4,359	3,901	3,783
SOx	4,584	3,896	3,098
Soot and dust	211	173	167
Substances subject to the PRTR Act*2	419	420	404

Note: The number of companies included in the boundary of calculation for the environmental performance data on page 136 is as follows for each year.

FY2020: Sumitomo Chemical and Group companies in Japan: 22 companies

FY2021: Sumitomo Chemical and Group companies in Japan: 23 companies FY2022: Sumitomo Chemical and Group companies in Japan: 22 companies

\*1 From fiscal 2017, the greenhouse gas (all seven gases) indices were calculated based on the GHG Protocol for greenhouse gas emissions (refer to page 238 "Calculation Standards for Environmental and Social Data Indicators") for principal consolidated Group companies in Japan, which account for up to 99.8% of consolidated net sales. • Having adopted the GHG Protocol standards for our GHG emission disclosures, we now include the following data that was previously excluded from calculations: CO2 emissions from energy sold to external parties by Sumitomo Chemical and Group companies in Japan (the portion attributable to energy provider subsidiaries was included in years prior to fiscal 2016); CO2 emissions from energy use attributable to Sumitomo Chemical's non-production sites; and CO2 emissions from non-energy sources not included in the scope of the Act on Promotion of Global Warming Countermeasures. In addition, from fiscal 2018, we include energy use attributable to the non-production sites of Group companies in Japan

\*2 Calculated based on the amount released into water/the air of each substance subject to the PRTR Act.

#### Compliance with Environmental Laws and Regulations

			(ren)
	FY2020	FY2021	FY2022
Total fines	0	0	0

#### Note: Sumitomo Chemical and Group companies in Japan are included in the boundary of calculation.

[The production sites of the 21 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.; Nippon A&L Inc.; Asahi Chemical Co., Ltd.; Sumika Assembly Techno Co., 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; and Sumika Kowa Tech Co., Ltd.

(Billion ven)



**Environmental Activities: Supplementary Data** 

## **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, 2022 to March 31, 2023

- (2) Boundary: Sumitomo Chemical and 21 major consolidated subsidiaries (16 in Japan and 5 overseas)\*
- (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 5 billion yen, and

consolidated expenses increased by 5.6 billion yen.

\* 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.

				FY2	021			FY2	022	
	Classification	Details of Major Initiatives	Non-Con	solidated	Conso	lidated	Non-Con	solidated	Conso	lidated
			Investment	Expenses	Investment	Expenses	Investment	Expenses	Investment	Expenses
Faci	lity Area Costs		1.0	20.1	2.5	32.7	4.2	23.8	7.3	36.8
B	Pollution Prevention Costs	Prevention of air pollution, water pollution, soil contamination, noise pollution, odors, ground subsidence, etc. (pages 139–140)	(0.7)	(14.4)	(1.7)	(19.3)	(1.0)	(17.8)	(3.4)	(23.1)
Breakdown	Global Environmental Protection Costs	Energy saving, prevention of global warming, ozone layer depletion, and other measures (pages 133, 142)	(0)	(0.1)	(0.3)	(3.9)	(0)	(0.3)	(0.4)	(4.3)
VN	Resource Recycling Costs	Resource saving, water saving and rainwater usage, waste reduction/disposal treatment, recycling, etc. (pages 116, 146)	(0.3)	(5.6)	(0.5)	(9.5)	(3.2)	(5.8)	(3.5)	(9.5)
	tream/ vnstream 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	0	0.5	0	0.1	0	0.4
Adn	ninistrative 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. (page 152)	0	0.8	0	1.5	0	0.9	0	1.5
R&D	Costs	Development of products with attention to environ- mental safety, research into energy-saving processes, etc. (pages 30–35)	0	8.0	0	8.2	0.1	9.5	0.1	9.7
Soci	al Activities Costs	Protection of the natural environment and enhance- ment 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	0.5	0	0.8	0	0.4	0	0.9
	ronmental nediation 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
Tota	I		1.0	29.4	2.5	43.7	4.3	34.7	7.5	49.3

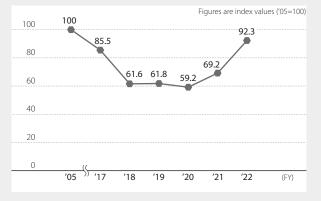
#### Environmental Protection Cost

## **Environmental Activities: Supplementary Data**

#### Economic Effects

				(Billion yen)	
Results	FY2	021	FY2022		
Results	Non-Consolidated	Consolidated	Non-Consolidated	Consolidated	
Reduced costs through energy saving	0.4	0.5	0.1	0.2	
Reduced costs through resource saving	0.7	0.9	0.4	0.7	
Reduced costs through recycling activities	4.1	4.5	4.0	4.5	
Total	5.2	5.9	4.5	5.5	

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



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.

EContents



**Environmental Activities: Supplementary Data** 

## 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.

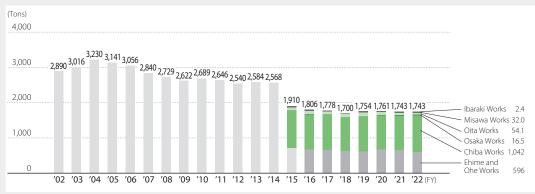
Note: Data for the Gifu Plant and Okayama Plant from fiscal 2004 to fiscal 2012 is included in Osaka Works. Data for the Gifu Plant and Okayama Plant from fiscal 2013 is included in Oita Works.

#### SOx Emissions (Sumitomo Chemical)





### NOx Emissions (Sumitomo Chemical)







Target

Continue to sustain levels below voluntary control standard values.

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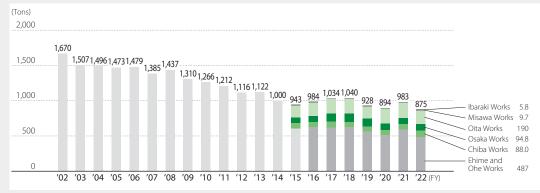
**Environmental Activities: Supplementary Data** 

## 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.

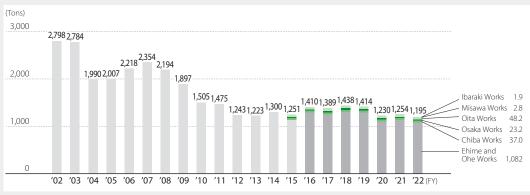
Note: Data for the Gifu Plant and Okayama Plant from fiscal 2004 to fiscal 2012 is included in Osaka Works. Data for the Gifu Plant and Okayama Plant from fiscal 2013 is included in Oita Works.

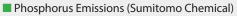


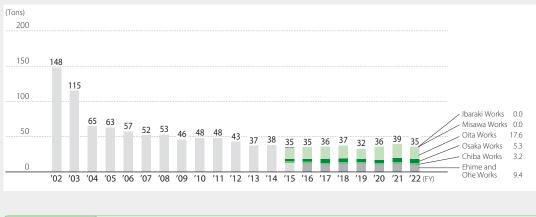




#### Nitrogen Emissions (Sumitomo Chemical)







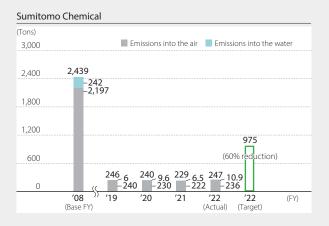


Continue to sustain levels below voluntary control standard values.

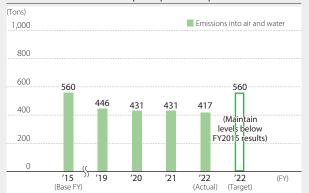


## Addressing PRTR and VOCs

#### Trends in Emissions of Substances Subject to the PRTR Act



#### Sumitomo Chemical and Group Companies in Japan

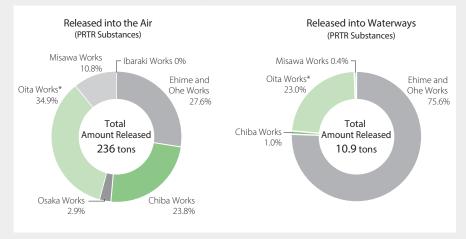


🗅 Environmental Activities: Supplementary Data

#### FY2022 Release and Transfer of PRTR Substances (Sumitomo Chemical and Group Companies in Japan)

						(Tons)
		Released		Transferred		
	Air	Air Water Subtotal		Sewage	Waste	Subtotal
PRTR substances						
Sumitomo Chemical (125 substances)	236	10.9	247	4.2	4,479	4,483
Sumitomo Chemical and Group companies in Japan	404	13.3	417	6.7	6,395	6,402

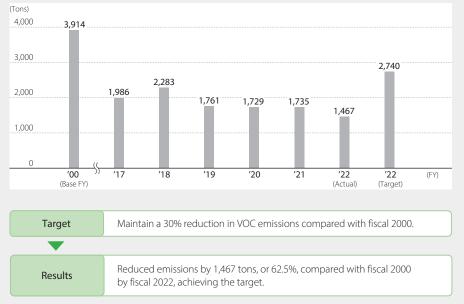
#### FY2022 PRTR Substances Released by Works (Sumitomo Chemical)



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







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

## Prevention of Ozone Layer Depletion

#### 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 2022

		(Number of Units)
	Sumitomo Chemical	Sumitomo Chemical and Group Companies in Japan
CFC11	5	5
CFC12	1	13
CFC13	0	0
CFC115	2	2
HCFC22	47	246
HCFC123	24	31

Target	<ul> <li>Eliminate the use of refrigeration units that use specified CFCs as coolants by fiscal 2025.</li> <li>Eliminate the use of refrigeration units that use HCFCs as coolants by</li> </ul>
	fiscal 2045.



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

I Zinc compounds (water-soluble)         00         62         00         62         00         62         00         62         00         62         00         62         00         62         00         62         00         62         00         62         00         62         00         63         64				Amo	ount Rele		(Tons, Dioxins: mg-TEC Amount Transferred			
2         Acrylic acid and its water-soluble saits         Col	No.	Name of Chemical Compound	Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
2         Acrylic acid and its water-soluble saits         Col	1	Zinc compounds (water-soluble)	0.0	62	0.0	0.0	62	<01	139.7	139.8
3         Methyl acylate         0.6         0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>• •••••• •</td><td></td><td>•• •••••</td><td>0.0</td><td>0.0</td></t<>						• •••••• •		•• •••••	0.0	0.0
4         Acryonitrile         30         0.0         0		······	•••••						<0.1	<0.1
S       Acrolein       0.0       0.0       0.0       0.0       0.0       0.0         6       Acetaldehyde       <0.1			••••••	••••••				•• ••••••	0.0	0.0
6 Acetaldehyde       <0.1			•••••	•••••	••••••	• •••••• •			0.0	0.0
7       Acetonitrile       35       0.0			•••••			• ••••• •		•••••••••••••••••••••••••••••••••••••••	0.0	0.0
8o-Anisidine0.00.00.00.00.00.00.09Anilne0.0 <t< td=""><td></td><td></td><td>•••••</td><td></td><td></td><td>• •••••• •</td><td></td><td></td><td>64.4</td><td>64.4</td></t<>			•••••			• •••••• •			64.4	64.4
Aniline         0.0         0.0         0.0         0.0         0.0         0.0           10         2-Aminoethanol         0.0         0.2         0.0			•••••	•••••				•• •••••	0.0	0.0
10         2-Mminoethanol         00         00         00         00         00         00           11         m-Aminophenol         0.0			•••••	•••••	••••••				28.7	28.7
11       m-Aminophenol       00       0.0       0.0       0.0       0.0       0.0         12       Ally lacohol       0.0<									33.8	33.8
12       Ally lakohol       <0.0			•••••	•••••		• •••••• •			0.0	0.0
13       Antimony and its compounds       00       0.0 <td< td=""><td></td><td></td><td>•••••</td><td></td><td></td><td>• •••••• •</td><td></td><td>•• •••••</td><td>0.0</td><td></td></td<>			•••••			• •••••• •		•• •••••	0.0	
14       lobutyraldehyde       0.5       0.0		,	•••••							0.0
15       Ethanethiol       0.0       0.0       0.0       0.0       0.0       0.0       0.0         16       OethylO-6-nitrometa-tolyl-sec-butylphosphoramidothioate (also known as Butamifos)       0.0		,	•••••	••••••	••••••	• •••••• •			0.0	0.0
DethylOe-nitro-meta-tolyl-sec-butylphosphoramidothioate (also known as Butamifos)         0.0         0.0         0.0         0.0         0.0         0.0         0.0           17         OethylOe-nitrophenyl phenylphosphonothioate (also known as EPN)         0.0 <t< td=""><td></td><td>· · · · · · · · · · · · · · · · · · ·</td><td>•••••</td><td>•••••</td><td>•••••</td><td>• •••••• •</td><td></td><td>•••••••••••••••••••••••••••••••••••••••</td><td>0.0</td><td>0.0</td></t<>		· · · · · · · · · · · · · · · · · · ·	•••••	•••••	•••••	• •••••• •		•••••••••••••••••••••••••••••••••••••••	0.0	0.0
16       (also known as Butamifos)       0.0 <td< td=""><td>15</td><td></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td></td<>	15		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18       2-Ethylhexanoic acid       0.0       0.0       0.0       0.0       0.0       0.0       0.0         19       Ethylhenediaminetetraacetate       0.0 <td< td=""><td>16</td><td></td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td></td<>	16		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19       Ethyleneziane       6.1       v.0.1       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0         20       Ethylenediaminetetraacetate       0.0 </td <td>17</td> <td>O-ethylO-4-nitrophenyl phenylphosphonothioate (also known as EPN)</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td>	17	O-ethylO-4-nitrophenyl phenylphosphonothioate (also known as EPN)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20         Ethylenediaminetetraacetate         0.0         0.0         0.0         0.0         0.0         0.0           21         Epichlorohydrin         0.0         0.0         0.0         0.0         0.0         0.0         0.0           21         12-Epoxypropane (also known as propylene oxide)         0.0         <	18	2-Ethylhexanoic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21       Epchlorohydrin       0.5       0.0       0.0       0.0       0.0       0.0         22       1.2-Epoxypropane (also known as propylene oxide)       0.0<	19	Ethylbenzene	6.1	<0.1	0.0	0.0	6.1	<0.1	64.3	64.4
22       1.2-Epoxypropane (also known as propylene oxide)       0.0       <0.0	20	Ethylenediaminetetraacetate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23       Ferric chloride       0.0	21	Epichlorohydrin	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
24       Cadmium and its compounds       0.0       0.0       0.0       0.0       0.0       0.0       0.0         25       E-Caprolactam       0.2       0.7       0.0       0.0       0.0       0.0         26       Xylene       5.0       <0.1	22	1,2-Epoxypropane (also known as propylene oxide)	0.0	<0.1	0.0	0.0	<0.1	0.0	0.0	0.0
25       c-Caprolactam       0.2       0.7       0.0       0.0       0.0         26       Xylene       5.0       <0.1	23	Ferric chloride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26       Xylene       5.0       <.0.1	24	Cadmium and its compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
27       Quinoline       0.0	25	ε-Caprolactam	0.2	0.7	0.0	0.0	0.9	0.0	0.0	0.0
28       Cumene       3.2       <0.1	26	Xylene	5.0	<0.1	0.0	0.0	5.1	<0.1	57.1	57.2
29 Cresol       0.4       0.0       0.0       0.0       0.0       0.0       0.0         30 Chromium and chromium(III) compounds       0.0       <	27	Quinoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30         Chromium and chromium(III) compounds         0.0	28	Cumene	3.2	<0.1	0.0	0.0	3.2	0.0	0.0	0.0
31       Chromium(VI) compounds       0.0       0	29	Cresol	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0
32       Chloroacetic acid       0.0 <td>30</td> <td>Chromium and chromium(III) compounds</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td>	30	Chromium and chromium(III) compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33       Chlorodifluoromethane (also known as HCFC-22)       0.6       0.0 <t< td=""><td>31</td><td>Chromium(VI) compounds</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>&lt;0.1</td><td>0.0</td><td>&lt;0.1</td></t<>	31	Chromium(VI) compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
34       2-chloro-4,6-bis (ethylamino)-1,3,5-triazine (also known as simazine or CAT)       0.0 </td <td>32</td> <td>Chloroacetic acid</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td>	32	Chloroacetic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35       3-Chloropropene (also known as allyl chloride)       1.6       0.0       0.0       1.6       0.0         36       Chlorobenzene       2.8       <0.1	33	Chlorodifluoromethane (also known as HCFC-22)	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
36       Chlorobenzene       2.8       <0.1	34	2-chloro-4,6-bis (ethylamino)-1,3,5-triazine (also known as simazine or CAT)	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
36       Chlorobenzene       2.8       <0.1	35	3-Chloropropene (also known as allyl chloride)	1.6	0.0	0.0	0.0	1.6	0.0	17.8	17.8
37       Chloroform       0.4       0.0       0.0       0.0       0.4       <0.1			2.8	•••••	••••••	• •••••• •		•• ••••••	132.8	132.8
38       Cobalt and its compounds       0.0 <td< td=""><td></td><td></td><td>•••••</td><td>•••••</td><td>••••••</td><td>••••••</td><td></td><td></td><td>218.4</td><td>218.4</td></td<>			•••••	•••••	••••••	••••••			218.4	218.4
39 Vinyl acetate       14.7       <0.1			•••••			• •••••• •		0.0	0.0	0.0
40       Salicyl aldehyde       0.0       0.0       0.0       0.0       0.0       0.0         41       (RS)-α-Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate (also known as fenpropathrin)       0.0       0.0       0.0       0.0       0.0       0.0         42       Inorganic cyanide compounds (excluding complex salts and cyanates)       0.0       0.0       0.0       0.0       0.0       0.0			•••••					0.0	0.0	0.0
41(RS)-α-Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate (also known as fenpropathrin)0.00.00.00.00.00.042Inorganic cyanide compounds (excluding complex salts and cyanates)0.00.00.00.00.00.00.00.0		,	•••••	••••••	••••••			0.0	0.0	0.0
42 Inorganic cyanide compounds (excluding complex salts and cyanates) 0.0 0.0 0.0 0.0 0.0 <0.1		(RS)-α-Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate						0.0	0.0	0.0
	42		0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
S-4-chlorobenzyl N,N-diethylthiocarbamate0.00.00.00.00.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0<0.0		S-4-chlorobenzyl N,N-diethylthiocarbamate						<0.1	0.0	<0.1



			Amo	ount Rele	eased			ons, Dioxin: unt Transf	-
No.	Name of Chemical Compound	Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
11	Tetrachloromethane	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
	1,4-Dioxane	<0.1	0.0	0.0	0.0	<0.1	<0.1	134.0	134.0
	cyclohexa-1-en-1,2-dicarboxyimidemethyl (1RS)-cis-trans-2,2-dimethyl-3-	<0.1		0.0	0.0	<0.1	<0.1	134.0	134.0
46	(2-methylprop-1-enyl) cyclopropanecarboxylate (also known as Tetramethrin)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	Cyclohexylamine	0.0	<0.1	0.0	0.0	<0.1	0.0	2.8	2.8
48	1,2-dichloroethane	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	<0.
49	1,1-Dichloroethylene (also known as vinylidene chloride)	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.
50	Cis-1,2-dichloroethylene	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.
51	Dichlorodifluoromethane (also known as CFC-12)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
52	2,2-Dichloro-1,1,1- trifluoroethane (also known as HCFC-123)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
53	1,2-Dichloropropane	0.0	0.0	0.0	0.0	0.0	0.0	426.0	426.
54	1,3-Dichloropropene (also known as D-D)	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.
55	Dichlorobenzene	<0.1	0.0	0.0	0.0	<0.1	0.0	104.3	104.
56	Dichloromethane (also known as methylene chloride)	4.3	0.0	0.0	0.0	4.3	0.0	57.4	57.
57	Dicyclopentadiene	<0.1	0.0	0.0	0.0	<0.1	0.0	6.8	6.
58	2,4-Dinitrophenol	0.0	0.0	0.0	0.0	0.0	0.0	34.2	34
59	1,3-Diphenylguanidine	0.0	0.4	0.0	0.0	0.4	0.0	8.9	8
60	2,6-Di-tert-butyl-4-cresol (also known as BHT)	0.0	<0.1	0.0	0.0	<0.1	0.0	0.0	0
61	N,N-Dimethylacetamide	<0.1	0.0	0.0	0.0	<0.1	0.0	7.9	7
62	2,4-dimethylaniline	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0
	N,N-Dimethylaniline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	Dimethylamine	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0
	N,N-Dimethylformamide	<0.1	0.0	0.0	0.0	<0.1	0.0	47.1	47
	Bromine	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0
	Mercury and its compounds	<0.1	0.0	0.0	0.0	<0.1	<0.1	0.0	<0
	Styrene	2.2	0.0	0.0	0.0	2.2	0.0	0.0	0
•••••	Selenium and its compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0
	Dioxins	<0.1	<0.1	0.0	0.0	<0.1	<0.1	0.0	<0
	O,O-dimethyl O-3-methyl-4-nitrophenyl phosphorothioate (also known as fenitrothion or MEP)	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1
72	Tetrachloroethylene	0.0		0.0	0.0	0.0	<0.1		<0
	Tetramethylthiuram disulfide (also known as thiuram or thiram)								
	Terephthalic acid	0.0 0.0	0.0	0.0 0.0	0.0	0.0 0.0	<0.1 0.0	0.0 369.8	<0 369
	Water-soluble copper salts (excluding complex salts)		•••••	•••••	• •••••	•••••			
	Triethylamine	0.0	<0.1	0.0	0.0	<0.1	< 0.1	0.5	0
	1,1,1-trichloroethane	0.9	0.2	0.0	0.0	1.1	0.7	30.6	31
	1,1,2-trichloroethane	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0
		0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0
	Trichloroethylene	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0
	2,4,6-Trichloro-1,3,5-triazine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	1,2,3-Trichloropropane	<0.1	0.0	0.0	0.0	<0.1	0.0	18.1	18
	1,2,4-Trimethylbenzene	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0
	Toluidine	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4
	Toluene	134.0	0.2	0.6	0.0	134.7	0.4	2,265.5	2,265
	Naphthalene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
	Lead compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0
	Nickel compounds	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1
88	Nitrobenzene	0.6	0.0	0.0	0.0	0.6	0.0	39.9	39
	Vanadium compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
90	Arsenic and its inorganic compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.1	0
	Hydrazine	0.0	<0.1	0.0	0.0	0.0	0.0	1.	

**≣**Contents

Environmental Activities: Supplementary Data

Amount Released Amount T									s: mg-TEQ)
No.	Name of Chemical Compound	Air	Water	Soil	Landfill	Total	Sewage	Waste	Total
	Hydroquinone	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
	4-Vinyl-1-cyclohexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Biphenyl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95	Pyridine	0.2	0.0	0.0	0.0	0.2	0.0	6.6	6.6
96	Phenylenediamine	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	tert-Butyl hydroperoxide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	2-tert-Butyl-5-methylphenol	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
101	Hydrogen fluoride and its water-soluble salts	0.0	0.0	0.0	0.0	0.0	<0.1	0.7	0.8
102	2-Propyn-1-ol	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
103	2-Bromopropane	0.6	0.0	0.0	0.0	0.6	0.0	7.4	7.4
104	Hexadecyltrimethylammonium chloride	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
105	n-Hexane	36.3	<0.1	0.0	0.0	36.3	0.0	104.9	104.9
106	Water-soluble salts of peroxydisulfuric acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107	Benzyl chloride (also known as 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	<0.1	<0.1
109	Benzene	0.3	0.2	0.0	0.0	0.5	<0.1	0.0	<0.1
110	Boron compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
111	Polychlorinated biphenyls (also known as PCBs)	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
112	Poly (oxyethylene) alkyl ether (alkyl C=12–15 and its mixture)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	Formaldehyde	0.4	<0.1	0.0	0.0	0.4	2.7	2.8	5.5
114	Manganese and its compounds	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	<0.1
115	Phthalic anhydride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116	Maleic anhydride	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1
117	Methacrylic acid	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1
118	2,3-Epoxypropyl methacrylate	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Methyl methacrylate	8.8	0.0	0.0	0.0	8.8	0.0	40.8	40.8
120	(Z)-2'-Methylacetophenone= 4,6-dimethyl-2-pyrimidinyl hydrazone (also known as Ferimzone)	0.0	2.3	0.0	0.0	2.3	0.0	0.0	0.0
121	Methylamine	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	3-Methylthiopropanal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Methylnaphthalene	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Morpholine	0.0	<0.1	0.0	0.0	<0.1	0.0	0.0	0.0
	Triphenyl phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tota		236	10.9	0.6	0.0	247	4.2	4,484	4,488

EContents

**Environmental Activities: Supplementary Data** 



## **Environmental Activities: Supplementary Data**

## **Industrial 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 2022

	Number	Volume of		
	Total	Storage	Usage	PCBs (kl)
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.

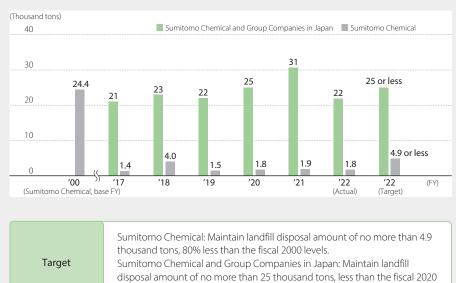
Target	Properly collect and store high-concentration PCB-containing waste and complete treatment of this waste at an early date.
Results	Sumitomo Chemical: As of March 31, 2021, the treatment of all high- concentration PCB-containing waste that had been stored and used has been completed. Group companies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

levels.

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



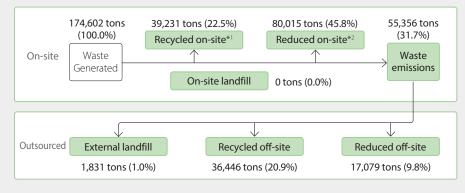


#### Digitization of Manifests to Be Prepared Pursuant to the Waste Management and Public Cleansing Act (Sumitomo Chemical)

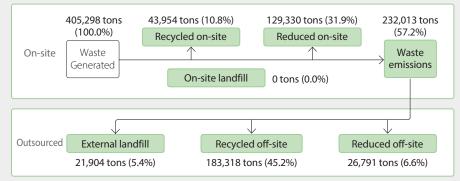
	Number of manifests issued	Number of manifests digitized	Digitization rate (%)
FY2015	18,973	16,337	86
FY2016	19,868	19,594	99
FY2017	19,858	19,585	99
FY2018	20,598	20,355	99
FY2019	19,835	19,726	99
FY2020	20,735	20,675	99
FY2021	23,027	22,961	99
FY2022	22,196	22,179	99

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 FY2022 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.

EContents

🗅 Environmental Activities: Supplementary Data



**Environmental Activities: Supplementary Data** 

#### FY2022 Results by Item in Connection with the Disposal of Waste

#### (Sumitomo Chemical)

											(Tons)
Туре	Waste	Recycle	d on-site	Reduce	d on-site	Waste	On-site	Reduced	Recycle	d off-site	External
	Generated	Reused, recycled	Thermally recycled	Incineration	Other	emissions	landfill	off-site	Reused, recycled	Thermally recycled	External landfill
a											
Burnt residue	5,408.7	0.0	0.0	0.0	0.0	5,408.7	0.0	0.0	4,826.4	0.0	582.3
Sludge	50,395.1	3.4	11,015.5	20,404.6	2,826.9	16,144.8	0.0	2,731.1	11,775.2	1,376.5	262.1
Oil waste	40,794.0	4,508.5	10,913.7	12,396.0	0.0	12,975.8	0.0	4,572.8	7,087.8	1,179.8	135.1
Waste acid	8,491.4	0.0	1.7	5,366.5	1,046.1	2,077.1	0.0	1,801.3	131.4	99.6	44.9
Waste alkali	60,048.0	12,394.6	17.7	24,053.3	12,354.0	11,228.4	0.0	6,480.2	3,365.0	1,244.1	139.1
Waste plastic	5,406.6	0.0	320.8	636.5	0.0	4,449.3	0.0	466.1	3,316.9	270.1	396.2
Waste paper	992.6	0.0	54.8	808.3	0.0	129.4	0.0	9.9	119.4	0.0	0.1
Wood waste	947.3	0.0	0.0	122.7	0.0	824.6	0.0	64.6	518.4	226.7	14.9
Textile waste	14.7	0.0	0.0	0.0	0.0	14.7	0.0	12.5	2.0	0.0	0.2
Animal and plant residues	11.5	0.0	0.0	0.0	0.0	11.5	0.0	11.5	0.0	0.0	0.0
Metal waste	781.5	0.0	0.0	0.3	0.0	781.2	0.0	159.9	604.8	0.0	16.5
Glass and pottery waste	442.5	0.0	0.0	0.0	0.0	442.5	0.0	110.6	262.8	38.8	30.3
Slag	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debris	842.0	0.0	0.0	0.0	0.0	842.0	0.0	658.8	0.0	0.0	183.2
Soot and dust	26.1	0.0	0.0	0.0	0.0	26.1	0.0	0.0	0.0	0.0	26.1
Total	174,602.1	16,906.4	22,324.2	63,788.2	16,227.0	55,356.1	0.0	17,079.3	32,010.1	4,435.6	1,831.1

#### (Sumitomo Chemical and Group Companies in Japan)

											(Tons)
Туре		Recycle	d on-site	Reduce	d on-site		Or site	Reduced	Recycle	d off-site	Esternal
	Waste Generated	Reused, recycled	Thermally recycled	Incineration	Other	Waste emissions	On-site landfill	off-site	Reused, recycled	Thermally recycled	External landfill
Burnt residue	14,195.9	0.0	0.0	0.0	0.0	14,195.9	0.0	0.0	10,816.6	2.5	3,376.8
Sludge	94,228.9	3.4	11,015.5	20,404.6	39,693.7	23,111.8	0.0	6,639.4	13,101.2	1,611.5	1,759.6
Oil waste	48,654.8	4,524.0	15,621.8	12,396.0	0.0	16,113.1	0.0	3,993.6	7,750.9	4,197.3	170.9
Waste acid	10,512.7	0.0	1.7	5,366.5	1,046.1	4,098.4	0.0	3,110.8	329.0	573.6	85.0
Waste alkali	82,340.6	12,394.6	17.7	36,501.3	12,354.0	21,073.0	0.0	10,748.8	7,535.4	2,503.9	284.8
Waste plastic	9,414.7	0.0	320.8	636.5	0.0	8,457.5	0.0	1,116.4	5,569.0	687.7	1,084.4
Waste paper	1,893.5	0.0	54.8	808.3	0.0	1,030.3	0.0	96.3	930.2	0.8	3.1
Wood waste	1,311.1	0.0	0.0	122.7	0.0	1,188.4	0.0	100.0	790.2	279.2	19.1
Textile waste	14.7	0.0	0.0	0.0	0.0	14.7	0.0	12.5	2.0	0.0	0.2
Animal and plant residues	18.6	0.0	0.0	0.0	0.0	18.6	0.0	14.7	0.0	3.8	0.1
Metal waste	875.2	0.0	0.0	0.3	0.0	874.9	0.0	180.8	671.0	1.6	21.6
Glass and pottery waste	485.6	0.0	0.0	0.0	0.0	485.6	0.0	118.3	278.0	40.7	48.4
Slag	114.6	0.0	0.0	0.0	0.0	114.6	0.0	0.0	0.0	0.0	114.6
Debris	1,213.5	0.0	0.0	0.0	0.0	1,213.5	0.0	658.9	0.0	0.0	554.7
Soot and dust	140,023.1	0.0	0.0	0.0	0.0	140,023.1	0.0	0.0	125,642.0	0.0	14,381.1
Total	405,297.6	16,921.9	27,032.3	76,236.2	53,093.8	232,013.3	0.0	26,790.6	173,415.5	9,902.7	21,904.5



### FY2022 Categories of Hazardous\* and Non-Hazardous Waste

#### (Sumitomo Chemical)

(Ions)											
Type Waste Generated	Masta	Recycle	cycled on-site Reduced on-site		Waste	On-site	Reduced	Recycled off-site		External	
	Generated	Reused, recycled	Thermally recycled	Incineration	Other	emissions	landfill	off-site	Reused, recycled	Thermally recycled	
Non-Hazardous Waste	65,269	3	11,391	21,972	2,827	29,075	0	4,225	21,426	1,912	1,512
Hazardous Waste	109,334	16,903	10,933	41,816	13,400	26,281	0	12,854	10,584	2,523	319

#### (Sumitomo Chemical and Group Companies in Japan)

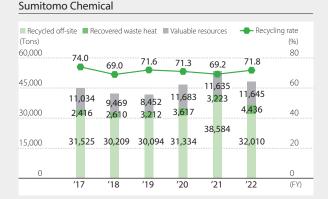
lype	Waste	Recyclee	d on-site	Reduced	l on-site	Waste	On-site	Reduced	Recycle	d off-site	External
	Generated	Reused, recycled	Thermally recycled	Incineration	Other	emissions		off-site	Reused, recycled	Thermally recycled	External landfill
Non-Hazardous Waste	263,789	3	11,391	21,972	39,694	190,729	0	8,937	157,800	2,628	21,364
Hazardous Waste	141,508	16,919	15,641	54,264	13,400	41,284	0	17,853	15,615	7,275	541

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

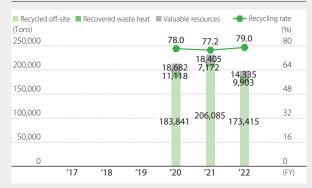
#### Initiatives to Recycle and Reuse Plastic and Other Waste

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

#### Results of Recycling and Reusing Waste (including valuable resources and recovered waste heat)\*1

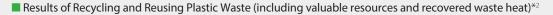


#### Sumitomo Chemical and Group Companies in Japan



Environmental Activities: Supplementary Data

(Tons)



#### Sumitomo Chemical Recycled off-site Recovered waste heat Valuable resources Becycling rate (Tons) (%) 89.9 9.000 86.8 86.6 90 86.0 85.7 83.4 7,500 75 6,000 60 4 1 1 3 4,219 4,303 3,363 2,895 4,500 45 1,939 110 270 3,000 30 99 140 47 82 3,473 3.317 1,500 15 3.274 3,130 2.918 2,923 0 '17 '18 '19 '20 '21 '22 (FY)

Sumitomo Chemical and Group Companies in Japan



\*1 Amount of recycled and reused waste (including valuable resources and recovered waste heat) = amount of externally recycled and reused waste + amount of externally recovered waste heat + amount of valuable resources

Percentage of recycled and reused waste (including valuable resources and recovered waste heat) = (amount of externally recycled and reused waste + amount of externally recovered waste heat + amount of valuable resources)/(amount of emitted waste + amount of valuable resources)

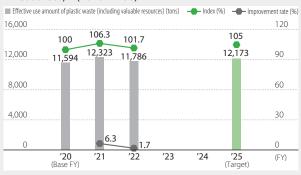
\*2 Amount of recycled and reused plastic waste (including valuable resources and recovered waste heat) = amount of externally recycled and reused waste + amount of valuable resources

Percentage of recycled and reused plastic waste (including valuable resources and recovered waste heat) = (amount of externally recycled and reused waste + amount of externally recovered waste heat + amount of valuable resources)/(amount of emitted waste + amount of valuable resources)

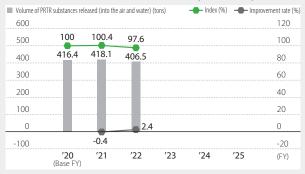
## Common Environmental Protection and Management Targets (Japan)

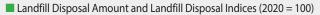


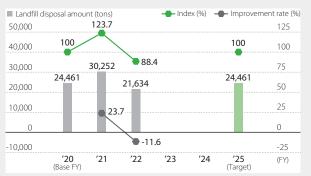
Effective Use Amount of Plastic Waste (including valuable resources)<sup>\*2</sup> (2020 = 100)



Volume of PRTR Substances Released (into the Air and Water) and PRTR Substance Emissions Indices (2020 = 100)







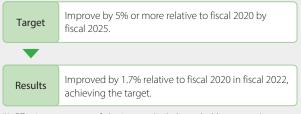
#### Improve the effective use rate of waste



Environmental Activities: Supplementary Data

\*1 Effective use rate of waste = {(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)}/amount of waste generated × 100

#### Improve the effective use amount of plastic waste



\*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



\*3 The new target will be set after the PRTR Act is amended in fiscal 2023.

#### Reduction of landfill disposal amount



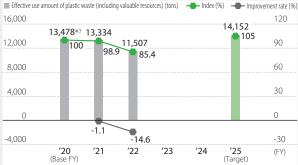
Note: Sumitomo Chemical and the 17 Group companies in Japan listed below are included in the boundary of calculation.

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)**



#### Effective Use Amount of Plastic waste (including valuable (2020 = 100)



#### Unit Water Usage Indices (2020 = 100)



#### Note: The following 30 Group companies overseas are included in the boundary of calculation:

#### • The Polyolefin Company (Singapore) Pte.Ltd. • Sumitomo Chemical Asia Pte Ltd (MMA&S-SBR) Singapore Thailand • Sumipex (Thailand) Co., Ltd. • Bara Chemical Co., Ltd. • Sumika Polymer Compounds (Thailand) Co., Ltd. Vietnam Sumika Electronic Materials Vietnam Co., Ltd. Dalian Sumika Chemphy Chemical Co., Ltd. Sumika Electronic Materials (Wuxi) Co., Ltd. China 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. Sumitomo Chemical Advanced Technologies LLC McLaughlin Gormley King Company Valent BioSciences LLC United States Sumika Polymer North America LLC United Kingdom • Sumika Polymer Compounds UK Co., Ltd. Turkey • Sumika Polymer Compounds Turkey Co., Ltd.

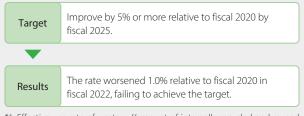
151

#### Sumika Polymer Compounds France Co., Ltd. France

\*3 Following a detailed analysis, data for fiscal 2020 was retroactively revised.

#### \*4 Following a detailed analysis, data for fiscal 2021 was retroactively revised.

#### Improve the effective use rate of waste



**Environmental Activities: Supplementary Data** 

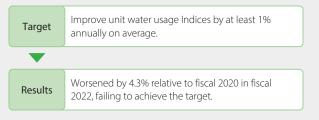
\*1 Effective use rate of waste = {(amount of internally recycled and reused waste + amount of internally recovered waste heat) + (amount of externally recycled and reused waste + amount of externally recovered waste heat)}/ amount of waste generated  $\times$  100

#### Improve the effective use amount of plastic waste



\*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



EContents



**Environmental Activities: Supplementary Data** 

## **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 Date
Ehime Works (including Ohe Works)	JCQA-E-0018	April 12, 2025
Chiba Works (including the SCIOCS Chiba Facility)	KHK-97ER, 004	June 25, 2024
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

#### 2. Group Companies In Japan

Companies	Certificate Number	Certification Date
Sumika-Kakoushi Co., Ltd.	JCQA-E-0532	January 12, 2025
Sumika Color Co., Ltd.	JUSE-EG-680	May 8, 2024
Nippon A&L Inc. (Ehime Works)	ISO 14001-0076790	January 3, 2025
Nippon A&L Inc. (Chiba Works)	(KHK-)97ER, 004	June 25, 2024
Asahi Chemical Co., Ltd.	JUSE-EG-717	February 26, 2024
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, 2024
Koei Chemical Co., Ltd.	JCQA-E-0969	March 11, 2023
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, 2023
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, 2023
SANRITZ Co., Ltd.	JMAQA-E105	April 26, 2024
Kohwa Chemicals Inc.	EMS 601582	December 26, 2025

ance Environment Society Econtents



Environmental Activities: Supplementary Data

#### 3. Overseas Group Companies

Companies	Certificate Number	Certification Date
Bara Chemical Co., Ltd.	24120907002	August 29, 2024
SSLM Co., Ltd.	EAC-06178	May 7, 2024
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, 2024
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	October 10, 2024
Sumitomo Chemical Advanced Technologies LLC	43631-2008-AE-USA-ANAB	June 2, 2023
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, 2023
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 (Hefei) Co., Ltd.	268157-2018-AE-RGC-RvA	August 24, 2024
Sumika Electronic Materials (Shanghai) Co., Ltd.	11721EU0025-07 R1S	August 21, 2024
Sumika Electronic Materials (Wuxi) Co., Ltd.	64188-2009-AE-RCG-RVA	October 30, 2024
Sumika Electronic Materials (Changzhou) Co., Ltd.	CN20/10228	May 19, 2023
XUYOU Electronic Materials (Wuxi) Co., Ltd.	00220E34370R0M	December 24, 2023
Sumika Electronic Materials (Chongqing) Co., Ltd.	CN15/21719	December 6, 2024
Sumika Polymer Compounds (Thailand) Co., Ltd.	66 104 130035	September 9, 2025
Sumipex (Thailand) Co., Ltd.	TH10/4097	November 30, 2023
Sumitomo Chemical Asia Pte Ltd (MMA plant)	10369744	June 30, 2024
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, 2023

## **Energy Management System**

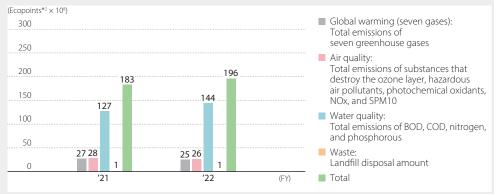
### Acquisition of ISO 50001 Certification

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



# Examining the Practical Use of Environmental Efficiency Indicators and Environmental Management Accounting Methods

#### Breakdown of Aggregate Values for Environmental Impact (Sumitomo Chemical) by JEPIX\*



#### Assessing the Environmental Impact of Each Group Company Using JEPIX

In fiscal 2022, as in the previous fiscal year, we undertook environmental impact assessments using JEPIX, in order to evaluate the effectiveness of this index as a strategic management indicator, and continued with relevant analyses.

#### Assessing the Environmental Impact of Each Product by LIME\*3

For more practical use of LCA<sup>\*4</sup> data both internally and externally, we use LCA software (MiLCA) from the Japan Environmental Management Association for Industry to undertake environmental impact assessments of our major products using the LIME method.

#### Trial Evaluation of Material Flow Cost Accounting (MFCA)\*5

We are continuing to evaluate the effectiveness of this tool and also are performing examinations for the simplification and standardization of the method and procedures in order to foster their use. MFCA, which focuses on the loss of energy and resources, helps minimize loss and cost and reduces environmental impact.

\*1 Environmental Policy Priorities Index for Japan (JEPIX): This method, which employs a uniform single indicator called "Ecopoints" to evaluate environmental impact, is derived from the Swiss LCIA Eco Scarcity methodology. The current method evaluates the discrepancy between targets (e.g., laws and environmental policies) and actual conditions based on material flow data.

\*2 Ecopoints:

An indicator for total environmental impact—the smaller the value, the lower the environmental impact.

- \*3 Life-cycle Impact assessment Method based on Endpoint modeling (LIME)
- A life-cycle impact assessment method developed in Japan as a cornerstone for measuring Japan's environmental conditions.
- \*4 Life Cycle Assessment (LCA):

A method for evaluating the environmental impact of products and services throughout their life cycles.

\*5 Material Flow Cost Accounting (MFCA): An environmental cost accounting method that identifies input costs of materials, processing, electricity, fuel, and others, and compares them with the energy and resources lost in manufacturing processes.