

CSR REPORT 2004 DATA BOOK



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SUSTAINABLE CHEMISTRY

* Each Sumitomo Chemical works compiles its own version of the "Environmental, Health & Safety Report".
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1 Management System

—Introduction of Management System based on International Standards

① Environmental Management System (ISO14001)

ISO14001 certification was acquired at all works between 1997 and 1999. Among the Sumitomo Chemical Group affiliates, 18 domestic companies and 2 foreign companies had acquired ISO14001 certification as of June 2004.

Acquisition of ISO14001 certification for Sumitomo Chemical's five works

Works	Certificate Number	Date of Acquisition
Ehime Works	JCQA-E-018	April 1998
Chiba Works	KHK-97ER-04	June 1997
Osaka Works	JQA-E-90072	November 1997
Oita Works	JQA-E-90152	March 1998
Misawa Works	JQA-EM0355	March 1999

② Quality Management System (ISO9000 Series)

Certification of compliance with ISO9002:1994 was completed at all works in 1994 through 1995. After successfully completing inspections and examinations in late 2002 through early 2003, Sumitomo Chemical made the transition from compliance with ISO9002:1994 to ISO9001:2000, the 2000 revision of the ISO 9001 series. As of June 2004, 24 domestic group companies and 11 foreign group companies had acquired ISO9000 series certification.

Acquisition of ISO9000 series certification for Sumitomo Chemical's five works
ISO9002 (1994 version) ISO9001 (2000 version)

Works and Certificate Number	Date of Acquisition	First Certificate Issuing Date
Ehime Works : JCQA-0019	October 1994	December 2002
: JCQA-0320	April 1998	March 2003
Ehime Works : JQA-0829	March 1995	September 2002
Osaka Works : JQA-0721	December 1994	December 2002
Oita Works : JQA-1069	December 1995	February 2003
Misawa Works : JQA-0752	December 1994	December 2002

③ Occupational Safety and Health Management System (OSHMS)

Certification of the Occupational Safety and Health Management System (OSHMS) was fully completed by the Japan Industrial Safety and Health Association (JISHA) at the Chiba Works in May 2003 – the first plant in Chiba prefecture to receive such certification (Certificate number: 03-12-1; Date of acquisition: May 2003). The aim is to acquire certification under this system at all works and research facilities by the end of fiscal 2006.

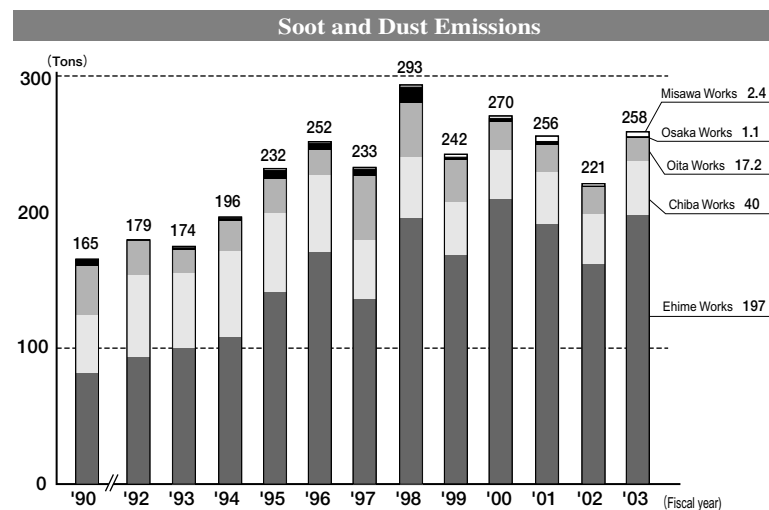
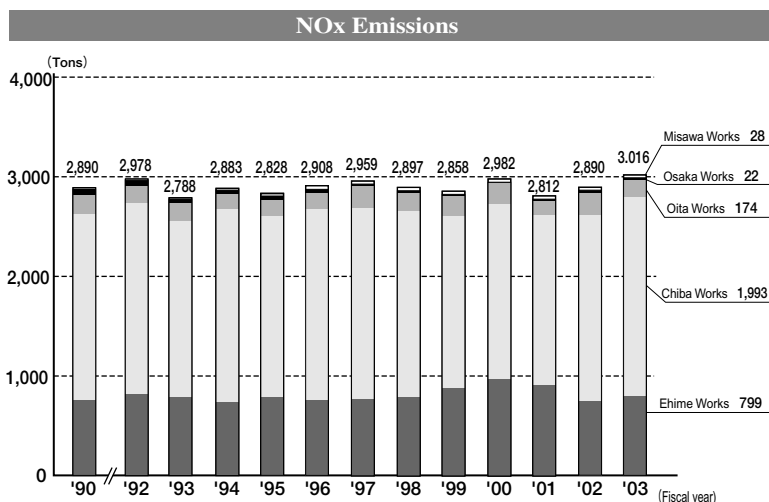
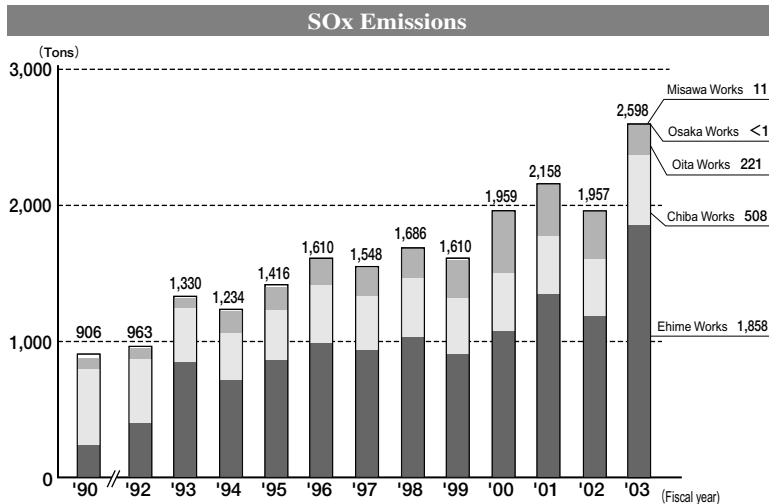
2 Environmental Preservation

Pollution Prevention

① Atmospheric emissions of SOx, NOx, and Soot and Dust

Since 1970, Sumitomo Chemical has achieved a marked reduction in the release of SOx, NOx, and soot and dust into the atmosphere, and, from 1980 to the present, has maintained this low level of emissions. Furthermore, the Company has concluded cooperative agreements with municipalities at each of its manufacturing works, establishing voluntary control levels that are stricter than the standards set by laws and regulations. Although emissions of SOx and soot and dust have risen over the past several years due to the increased use of high-sulfur crude oil, they are still substantially below the voluntary control levels.

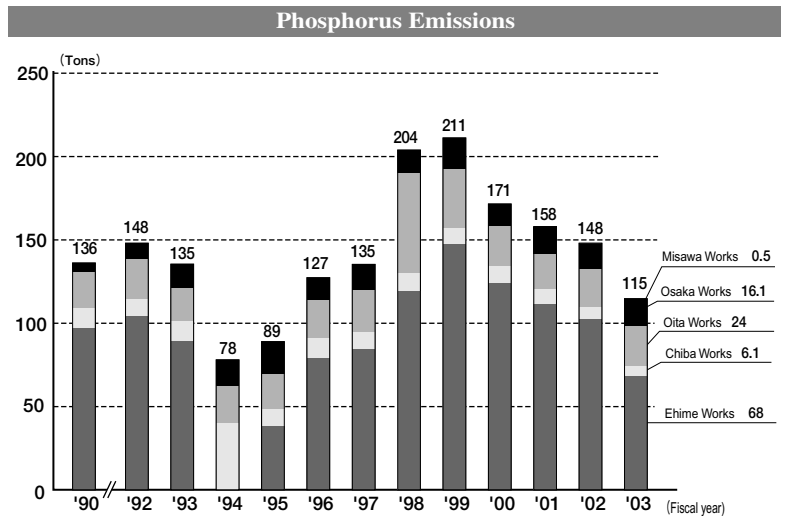
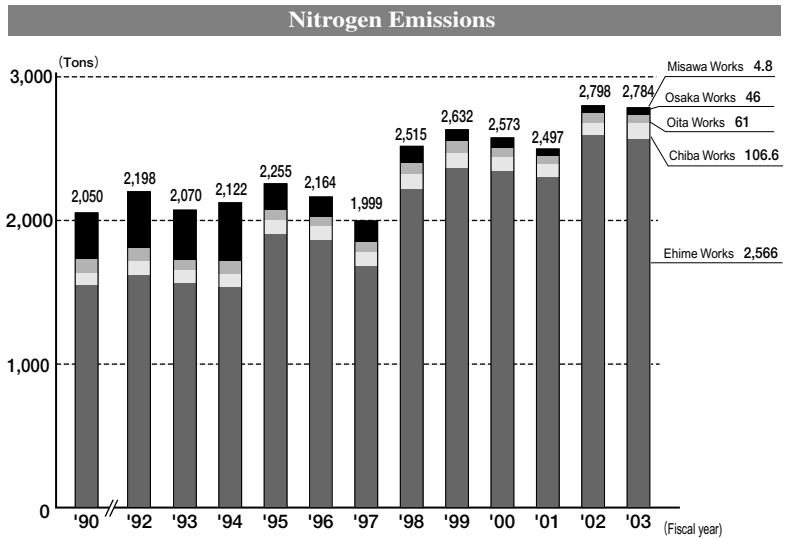
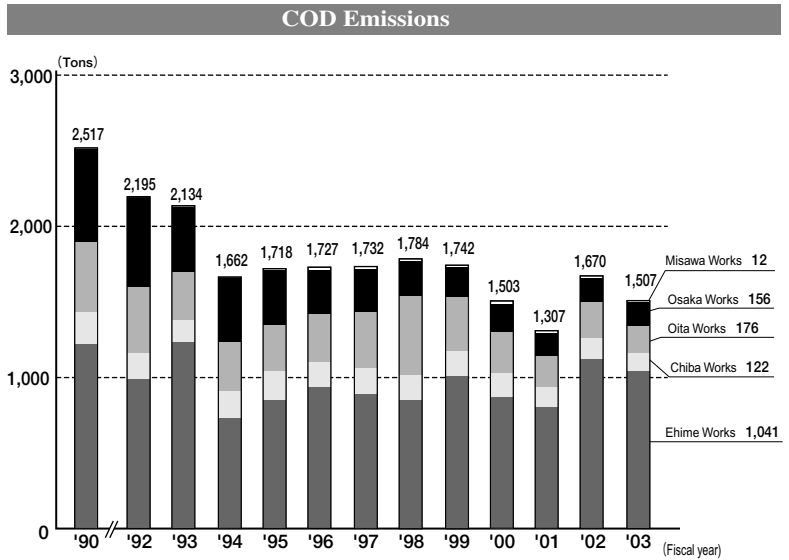
Target : To continue to sustain levels below the independent control standard values.



② Water Emissions — Levels of COD, Nitrogen, and Phosphorous

Sumitomo Chemical has also concluded cooperative agreements with municipalities to establish voluntary control levels for levels of COD as well as nitrogen and phosphorous released into waterways that are stricter than the standards set by laws and regulations. Recently, nitrogen emissions have increased slightly as a result of a product composition-related rise in the volume of effluent containing nitrogen.

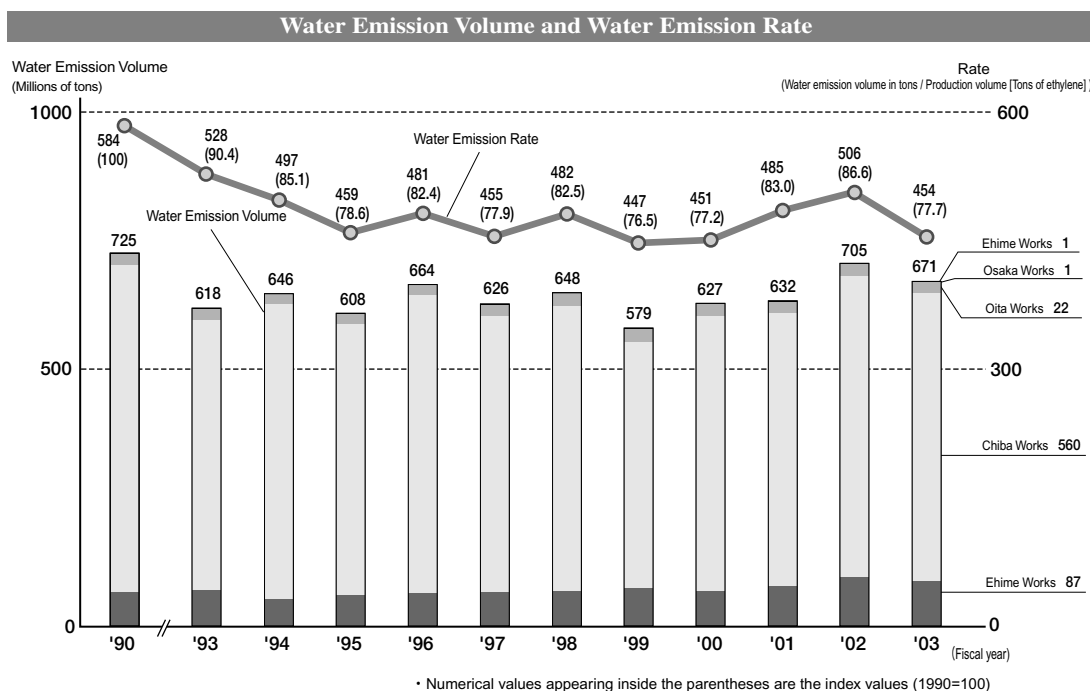
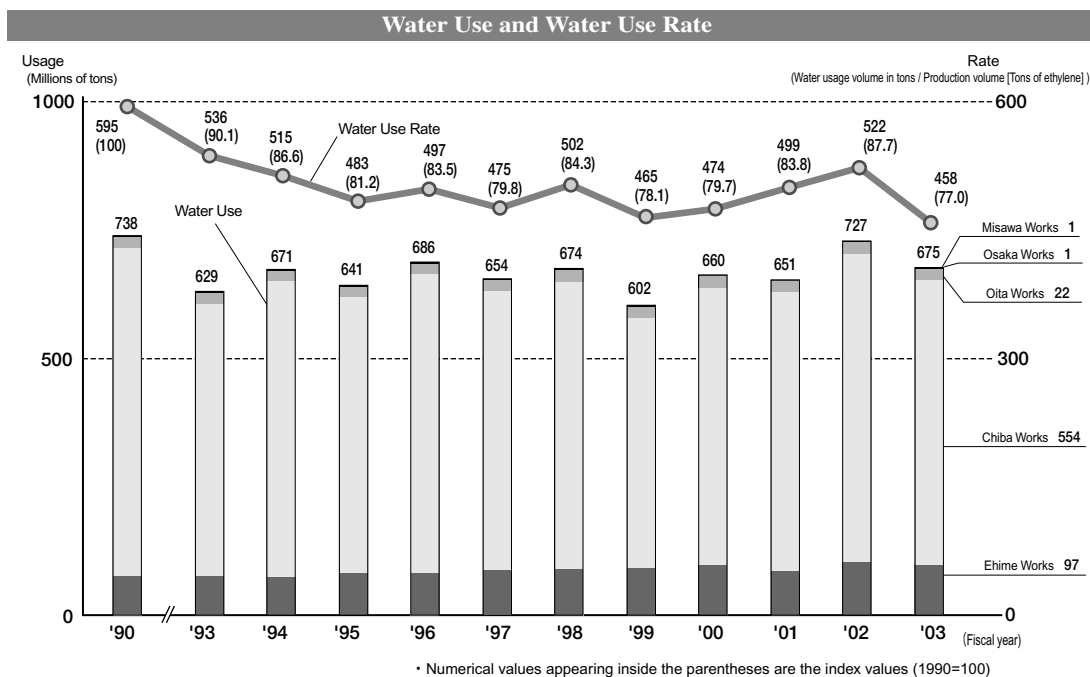
Target : To continue to sustain levels below the independent control standard values.



Promoting Effective Use of Water

In fiscal 2003, water use dropped 7.2% from the previous fiscal year, to 675 million tons, owing mainly to improved productivity and the more efficient use of water. In addition, the water use rate improved 12.3% compared with the previous fiscal year, or 23% compared with fiscal 1990.

Target : Efficient use of water resources.



Reducing Greenhouse Gas Emissions

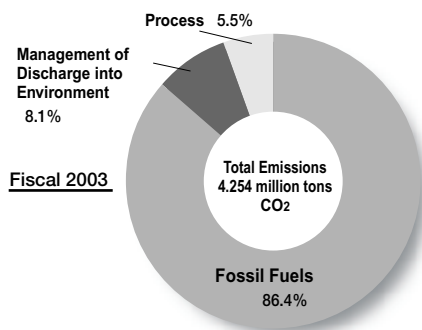
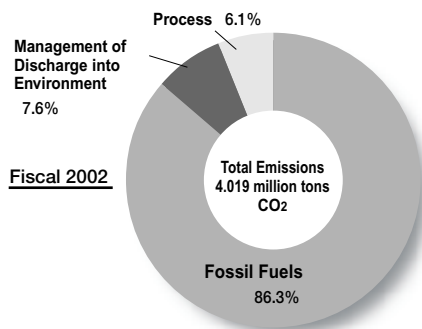
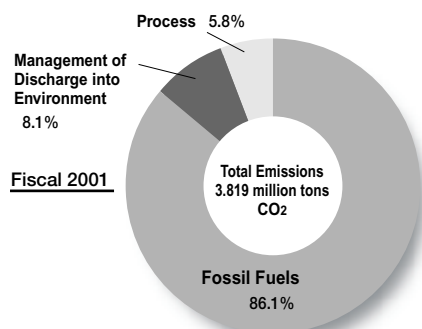
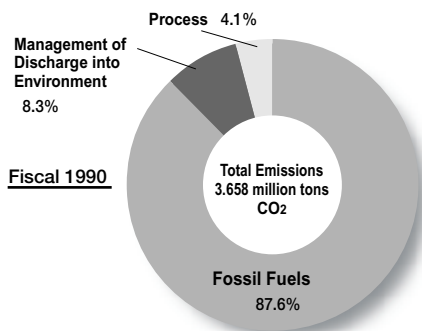
① Carbon dioxide

In fiscal 2003, the parent company's CO₂ emissions totaled 4.25 million tons, a 5.9% increase compared with fiscal 2002 due to increased production volume. This is a 16.3% increase compared with fiscal 1990.

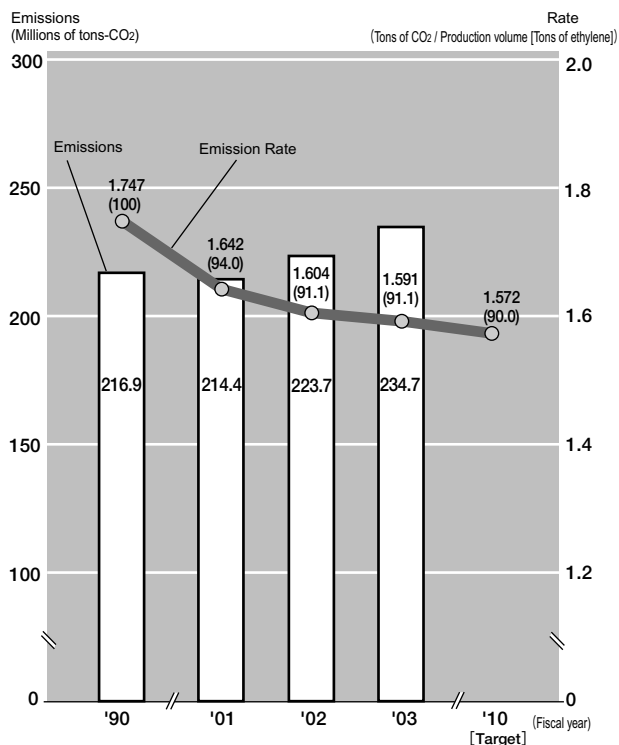
On the other hand, in fiscal 2003, Sumitomo Chemical's CO₂ emissions rate from fossil fuel consumption declined 0.8% compared with fiscal 2002, an 8.9% improvement on fiscal 1990.

Target : To achieve a 10% improvement in the basic unit for carbon dioxide emissions originating in fossil fuels consumed internally, by fiscal 2010, in comparison with fiscal 1990.

Sources of CO₂ Emissions



CO₂ Emissions from Fossil Fuel Consumption and Corresponding Emission Rates



• Numerical values appearing inside the parentheses are the index values (1990=100)
 • Figures for Fiscal 2002 have been revised due to improvements in the accuracy of the data.

② Six Greenhouse Gases (All six gases)

Emissions of all six greenhouse gases regulated by the Law Concerning the Promotion of Measures to Cope with Global Warming were up 5.7% from the previous year, to 4.307 million tons (CO₂ conversion).

Emissions of Greenhouse Gases (All six gases)

	(Millions of tons-CO ₂ conversion)	
	Fiscal 2002	Fiscal 2003
CO ₂	401.9	425.4
Methane	0.01	0.01
N ₂ O	5.6	5.3
Hydrofluorocarbon (HFC)	0.02	<0.01
Perfluorocarbon (PFC)	0	0
Sulfur hexafluoride	0	0
Total	407.5	430.7

• The Fiscal 2002 N₂O Figure has been revised due to improvements in the accuracy of the data.

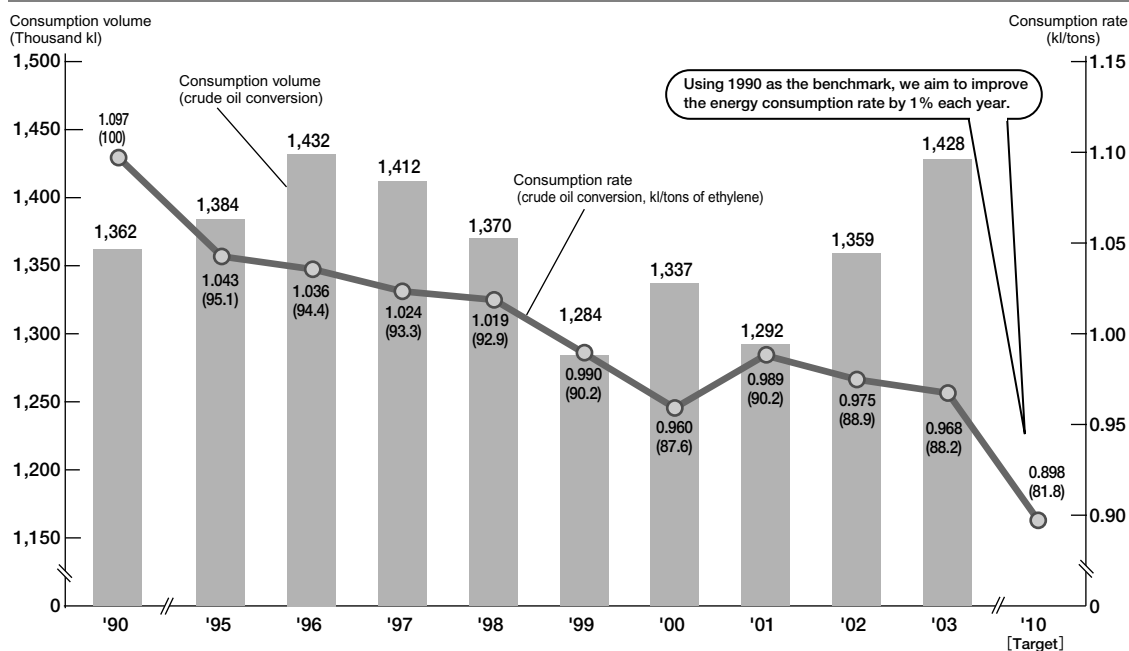
Energy Saving

In Fiscal 2003, Sumitomo Chemical used 1,428 thousand kl of energy (crude oil conversion), reflecting a 5.1% rise from the previous fiscal year due to increased production volume. However thermal recovery for ethylene, benzene, toluene, and xylene and other energy saving measures produced a 0.7% improvement from the previous year's level in the energy consumption rate.

Assigning fiscal 1990 a value of 100 in the energy consumption index, the fiscal 2003 target was 87.8, compared with the 88.2 actually achieved, for an achievement rate of 96.7%.

Target : To improve the energy consumption rate by at least 1% per year.

Energy Consumption Volume and Energy Consumption Rate



• Numerical values appearing inside the parentheses are the index values (1990=100)

Response to the Pollutant Release and Transfer Register (PRTR)

Based on the results of risk assessments and release evaluations, Sumitomo Chemical has set itself the new target of **reducing release volumes (air and water) of PRTR-targeted substances by 50% from fiscal 2002 levels by fiscal 2010**. Sumitomo Chemical is currently systematically promoting various measures aimed at reducing release volumes of PRTR-targeted substances. In Fiscal 2003, the company released a total of 813 tons of such materials, achieving a 12.2% drop from the previous fiscal year thanks to efforts to curb release volumes.

The company transferred a total of 1,848 tons of PRTR-targeted substances, reflecting a 1,436-ton rise from the previous fiscal year due to the suspension of industrial waste incinerator operations at Osaka Works.

Release and Transfer of PRTR-Targeted Substances in Fiscal 2003 ①*1

Unit: Tons*2, with the exception of dioxins, which are measured in mg-TEQ

PRTR-Targeted Substances	JCIA-Targeted Substances	Name of Chemical Compound	Amount Released					Amount Transferred		
			Air	Water	Soil (Excl. landfill)	Landfill	Total Amount Released	Sewerage	Waste	Total Amount Transferred
○	○	Zinc water-soluble compounds	0.2	0.8	0.0	0.0	1.0	0.0	5.7	5.7
○	○	Acrylamide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Acrylic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Butyl acrylate	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Methyl acrylate	6.5	0.0	0.0	0.0	6.5	0.0	0.0	0.0
○	○	Acrylonitrile	15.4	0.0	0.0	0.0	15.4	0.0	0.0	0.0
○	○	Acrolein	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Adipic acid	0.9	4.8	0.0	0.0	5.7	0.0	0.0	0.0
○	○	Acetaldehyde	0.2	0.1	0.0	0.0	0.3	0.0	0.0	0.0
○	○	Acetonitrile	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Acetone	48.7	3.9	0.0	0.0	52.6	<0.1	25.9	25.9
○	○	2,2' -Azobisisobutyronitrile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	O-Anisidine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Aniline	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0
○	○	2-Aminoethanol	0.4	0.1	0.0	0.0	0.5	0.0	0.0	0.0
○	○	3-Aminophenol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Allyl alcohol	0.1	<0.1	0.0	0.0	0.1	0.0	0.0	0.0
○	○	Ammonia	5.2	1.2	0.0	0.0	6.4	0.0	0.0	0.0
○	○	Aluminum compounds (water-soluble salts)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Isoprene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	O-ethyl O-(6-nitro-m-tolyl) sec-butylphosphoramidothioate (alias: Butamifos)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	2-ethyl-1-hexanol	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Ethylbenzene	6.0	<0.1	0.0	0.0	6.0	0.0	0.0	0.0
○	○	Ethylene Oxide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Ethylene glycol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Epichlorohydrin	17.6	0.4	0.0	0.0	18.0	0.0	0.0	0.0
○	○	1,2-epoxypropane (alias: Propylene oxide)	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Aluminum chloride	0.0	15.6	0.0	0.0	15.6	0.0	0.0	0.0
○	○	Hydrogen chloride (ex. Hydrochloric acid)	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
○	○	Chlorine	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	ε-Caprolactam	0.3	87.0	0.0	0.0	87.3	0.0	0.0	0.0
○	○	Formic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Xylene	14.1	<0.1	0.0	0.0	14.1	<0.1	262.3	262.3
○	○	Cumene; isopropylbenzene	12.5	0.1	0.0	0.0	12.6	0.0	0.0	0.0
○	○	Glyoxal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Cresol (o.m.p)	0.4	0.2	0.0	0.0	0.6	0.0	0.0	0.0
○	○	p-Chloroaniline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Chloroethane	12.1	0.0	0.0	0.0	12.1	0.0	0.0	0.0
○	○	Chloroethylene (alias: Vinyl chloride)	12.2	<0.1	0.0	0.0	12.2	0.0	0.0	0.0
○	○	3-Chloropropene (alias: Allyl chloride)	7.4	0.0	0.0	0.0	7.4	0.0	0.0	0.0
○	○	Chlorobenzene	19.6	<0.1	0.0	0.0	19.6	0.0	525.3	525.3
○	○	Chloroform	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7
○	○	Cobalt and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
○	○	Ethyl acetate	11.4	0.0	0.0	0.0	11.4	0.0	2.7	2.7
○	○	Vinyl acetate	253.0	0.4	0.0	0.0	253.4	0.0	13.2	13.2
○	○	α-Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutyrate (alias: Fenvalerate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Inorganic cyanide compounds (ex. Complex salts and Cyanates)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Diethanolamine	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0
○	○	1,4-Dioxane	3.0	0.0	0.0	0.0	3.0	1.0	131.9	132.9
○	○	Cyclohexanol	9.3	<0.1	0.0	0.0	9.3	0.0	0.0	0.0
○	○	Cyclohexane	44.5	0.0	0.0	0.0	44.5	0.0	0.0	0.0
○	○	Cyclohexylamine	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
○	○	1,2-Dichloroethane	10.8	0.0	0.0	0.0	10.8	0.0	221.0	221.0
○	○	1,1-Dichloroethylene (alias: Vinylidene Chloride)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	1,2-Dichloropropane	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
○	○	1,3-Dichloropropene (alias: D-D)	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0
○	○	o-Dichlorobenzene	0.2	<0.1	0.0	0.0	0.2	0.0	0.0	0.0
○	○	Dichloropentafluoropropane (alias: HCFC-225)	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0
○	○	Dichloromethane (alias: Methylene chloride)	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0
○	○	Dinitrotoluene	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0
○	○	2,4-Dinitrophenol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Release and Transfer of PRTR-Targeted Substances in Fiscal 2003 ②*1

Unit: Tons*2, with the exception of dioxins, which are measured in mg-TEQ

PRTR-Targeted Substances	JCIA-Targeted Substances	Name of Chemical Compound	Amount Released					Amount Transferred		
			Air	Water	Soil (Excl. landfill)	Landfill	Total Amount Released	Sewerage	Waste	Total Amount Transferred
○	○	Diphenylamine	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	○	2,6-Di-t-butyl-4-methylphenol/BHT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Dimethylamine	0.0	0.0	0.0	0.0	0.0	0.0	68.2	68.2
○	○	N,N-Dimethylformamide	<0.1	0.0	0.0	0.0	0.0	0.0	<0.1	0.0
	○	Hydrogen bromide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Oxalic acid anhydrous	4.4	0.0	0.0	0.0	4.4	0.0	0.0	0.0
	○	Bromine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Nitric acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Styrene	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
○	○	Dioxines (mg-TEQ)	134.3	29.0	0.0	0.0	163.3	0.0	122.1	122.1
○	○	o, o-dimethyl o-3-methyl-4-nitrophenyl phosphorothioate (alias: Fenitrothion or MEP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Tetrahydrofuran	9.0	<0.1	0.0	0.0	9.0	0.0	2.0	2.0
○	○	Terephthalic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Water-soluble copper salts (ex. Complex salts)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Triethanolamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Triethylamine	18.1	8.6	0.0	0.0	26.7	0.0	38.9	38.9
○	○	2,4,6-trichloro-1,3,5-triazine (Cyanuric chloride)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Trichlorotrifluoroethane (alias: CFC-113)	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
	○	Trimethylamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	o-Toluidine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Toluene	215.4	0.5	0.0	0.0	215.9	<0.1	649.7	649.7
○	○	Lead and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
○	○	Nickel	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
○	○	N-Nitrosodiphenylamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Nitrotoluene (o.m.p)	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
○	○	p-Nitrophenol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	2-Nitropropane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Nitrobenzene	0.6	5.3	0.0	0.0	5.9	0.0	0.0	0.0
○	○	Barium and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Hydrazine	<0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
○	○	Pyridine	0.4	0.2	0.0	0.0	0.6	0.0	11.3	11.3
○	○	Hydroquinone	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	m-Phenylenediamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Phenol	<0.1	0.0	0.0	0.0	<0.1	0.0	0.0	0.0
○	○	1,3-butadiene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Diisobutyl phthalate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Di-n-butyl phthalate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Bis (2-Ethylhexyl) Phthalate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Butyl alcohol	2.8	1.2	0.0	0.0	4.0	0.0	0.0	0.0
	○	Butyraldehyde	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
○	○	Hydrogen fluoride and its water-soluble salts	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
	○	Propyl alcohol	7.2	0.0	0.0	0.0	7.2	0.0	7.7	7.7
○	○	Hexamethylenediamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	n-Hexane	32.8	0.0	0.0	0.0	32.8	1.4	149.4	150.8
○	○	Benzyl chloride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Benzaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Benzene	41.7	0.5	0.0	0.0	42.2	0.0	0.0	0.0
	○	Pentaerythritol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Boron and its compounds	0.0	4.2	0.0	0.0	4.2	0.0	0.0	0.0
○	○	Phosgene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Poly (oxyethylene) nonylphenyl ether	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Formaldehyde	<0.1	<0.1	0.0	0.0	<0.1	2.0	0.0	2.0
○	○	Phthalic anhydride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Maleic anhydride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	2-Ethylhexyl methacrylate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	2,3-Epoxypropyl methacrylate	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
○	○	Methyl methacrylate	57.6	0.0	0.0	0.0	57.6	0.0	14.1	14.1
	○	Methanethiol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Methylamine	0.5	0.6	0.0	0.0	1.1	0.0	0.0	0.0
	○	Methyl alcohol	49.6	0.3	0.0	0.0	49.9	3.1	479.7	482.8
	○	Methyl ethyl ketone	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
○	○	2-sec-Butylphenyl N-methylcarbamate (alias: Fenobucarb or BPMC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	α-Methylstyrene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	N-Methylpyrrolidone	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4
	○	Methyl isobutyl ketone	104.7	1.7	0.0	0.0	106.4	0.0	59.2	59.2
	○	Melamine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
○	○	Molybdenum and its compounds	0.0	0.1	0.0	0.0	0.1	0.0	2.5	2.5
	○	Iodine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Sulfuric acid	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0
	○	Diethyl sulfate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Dimethyl sulfate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	○	Phosphorus and its compounds	0.0	56.6	0.0	0.0	56.6	0.0	0.1	0.1
		Total 133 substances used by Sumitomo Chemical (FY2003) *3	1074.2	196.4	0.0	0.0	1270.6	7.5	2682.5	2690.0
		Total 120 substances used by Sumitomo Chemical (FY2002)	1421.1	213.0	0.0	0.0	1634.1	8.0	586.8	594.8
		Total 131 substances used by Sumitomo Chemical (FY2001)	1598.7	256.0	0.0	0.1	1854.8	24.7	974.4	899.1
		Total 140 substances used by Sumitomo Chemical (FY2000)	1783.2	129.9	0.0	0.0	1913.1	71.2	756.9	828.1

*1 : In line with changes in the PRTR Law regarding reporting on PRTR-targeted substances, as of fiscal 2003, the list covers chemicals with production or use amounts exceeding one ton per year excluding dioxins and class-one chemicals identified by the PRTR Law as opposed to the list which previously covered chemicals with production or use amounts exceeding five tons per year. The list covers class-one chemicals identified by the PRTR Law with production or use amounts exceeding 0.5 ton per year as in previous years.

*2 : The PRTR Law indicates the use of kilograms (rounded off to two significant figures) for expressing weight, but in this report the numerical values are expressed in tons (except dioxins which use mg-TEQ).

*3 : The fiscal 2002 total of 120 targeted chemicals inspected rose to 133 in fiscal 2003 due to changes in the PRTR Law with regard to reporting on PRTR-targeted substances.

Release and Transfer of PRTR-Targeted Substances in Fiscal 2003

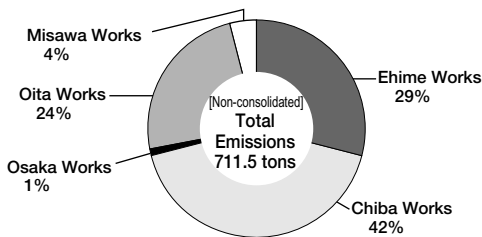
(Tons)

	Released			Transferred		
	Air	Water	Subtotal	Sewerage	Waste	Subtotal
PRTR-targeted substances (88 substances) (Non-consolidated)	711.5	101.4	812.9	3.0	1,845.2	1,848.2
PRTR-targeted substances in fiscal 2003 (Consolidated)	1,691.5	130.1	1,821.6	18.1	6,620.7	6,638.8
JCIA-targeted substances (133 substances) (Non-consolidated)	1,074.2	196.4	1,270.6	7.5	2,682.5	2,690.0

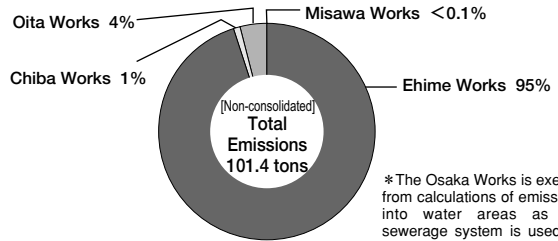
Note: Consolidated figures for the release and transfer of PRTR-targeted substances reflect totals for the parent company and its 13 domestic Group companies.

Breakdown of Emissions by Works

Atmospheric Emissions (PRTR-targeted substances)



Water Emissions (PRTR-targeted substances)

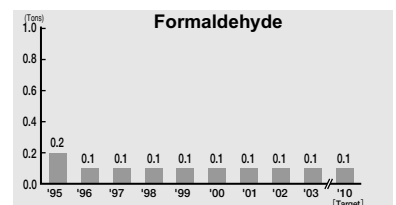
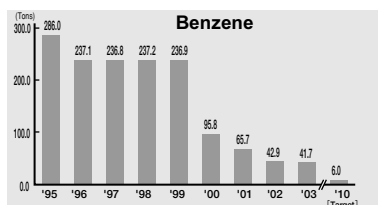
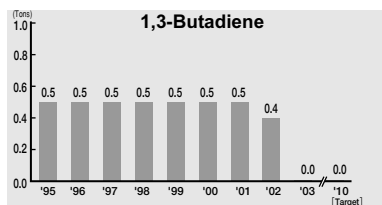
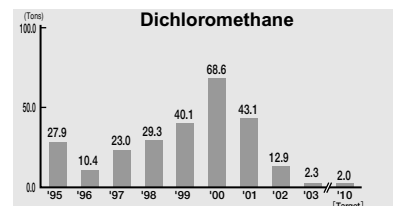
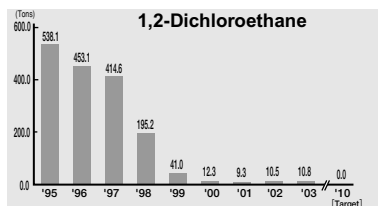
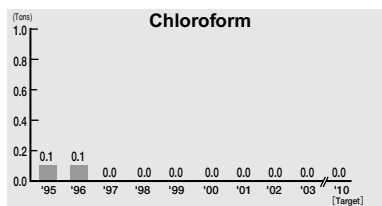
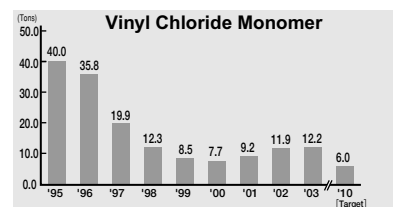
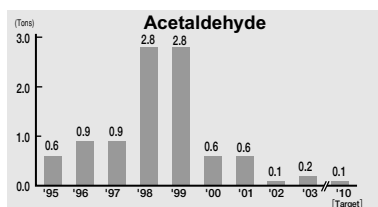
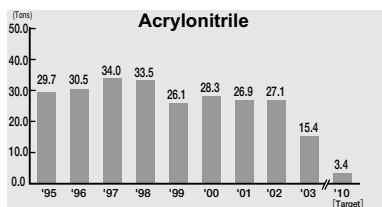
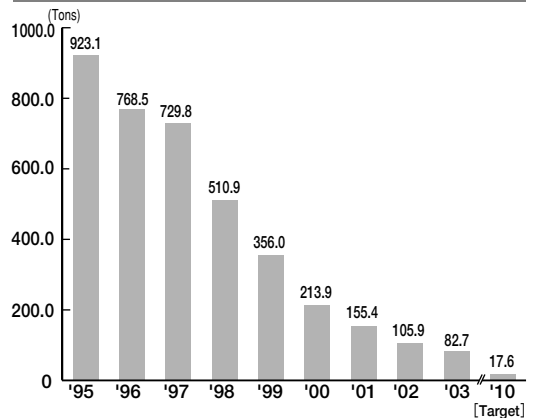


* The Osaka Works is exempt from calculations of emissions into water areas as the sewerage system is used for these emissions.

Voluntary Control of Hazardous Air Pollutants

Sumitomo Chemical currently handles nine of the 22 substances that the Ministry of the Environment has designated as requiring priority action. The Company has installed water absorption towers on tanks shipping acrylonitrile to curb acrylonitrile emissions; installed activated carbon absorption towers in gas lines to curb benzene emissions, and stopped using 1,3-butadiene as part of efforts to reduce emissions of these substances. As a result, in fiscal 2003, total emissions declined 21.9% from the previous fiscal year, to 82.7 tons. This is a 77% reduction from the fiscal 1999 level — exceeding our target of **reducing emissions by 75% from the fiscal 1999 level by fiscal 2003**. Starting in fiscal 2004, these reduction targets will be integrated with those of PRTR-targeted substances. The Company plans to reduce emissions of hazardous air pollutants by 95% from the fiscal 1999 level by fiscal 2010.

Total Emissions of All Nine Substances

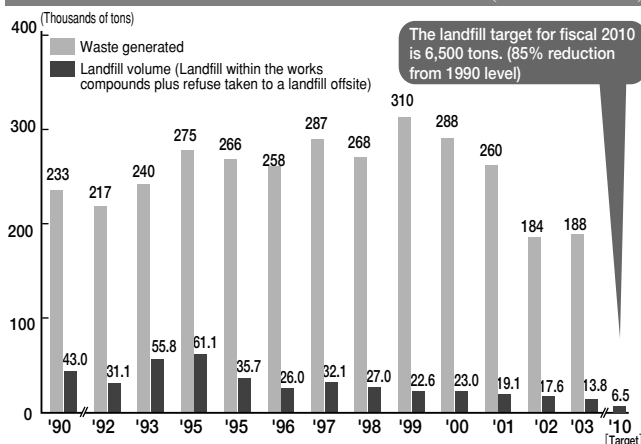


Waste Reduction

Due to Sumitomo Chemical's promotion of the reduce, reuse, and recycle cycle for waste, in fiscal 2003 landfill waste amounted to 13.8 thousand tons, down 21.6% from the previous fiscal year and 67.9% from fiscal 1990.

Target : To reduce landfill waste in fiscal 2010 by 85% from the fiscal 1990 level.

Trends in Waste Generated and Landfill Volume (Non-consolidated)



Reducing Bauxite Residue

The volume of red bauxite (the natural bauxite ore from which aluminum has been extracted) disposed of through sea dumping declined 1.1% from the previous fiscal year, to 514 thousand tons, representing a 6.7% reduction from the fiscal 2000 level.

Target : To reduce the amount of red bauxite disposed through sea dumping in fiscal 2005 to 10% below fiscal 2000 level.

PCB Recovery, Storage, and Treatment

In accordance with the law concerning special measures against PCB waste, Sumitomo Chemical recovers PCB waste (capacitors, transformers, and other electronic devices that contain PCB insulating oil); stores this industrial waste, which is subject to special control, in specified areas within the Company's waste storage facilities; and ensures strict control of these materials. Sumitomo Chemical plans to treat all its PCB waste by March 2014, ahead of the deadline specified in the law concerning special measures against PCB waste.

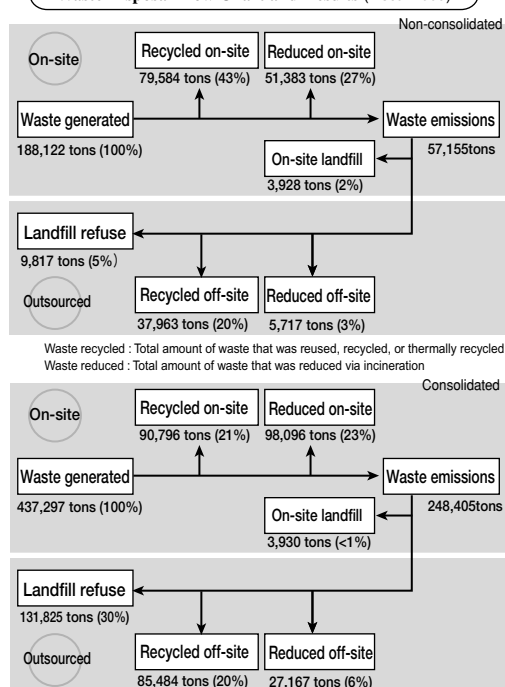
Target : To recover and store PCB waste products in an appropriate manner and to complete their treatment by March 2014.

Prevention of Ozone Layer Destruction

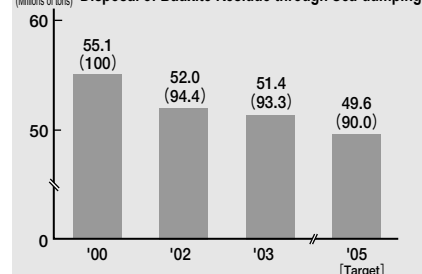
Sumitomo Chemical maintains strict control of cooling devices that use specific CFCs (specific substances designated in the law concerning the protection of the ozone layer through the control of specified substances and other measures) that are highly destructive to the ozone layer. The company is committed to ensuring that CFCs are not arbitrarily released into the atmosphere from these devices and carries out the proper recovery, transportation and destruction of specific CFCs from refrigeration units upon disposal.

Target : Eliminating the use of refrigeration units that use the specific CFCs (CFC11, CFC12, CFC113, CFC114, CFC115) as coolants by 2025.

Waste Disposal Flow Chart and Results (Fiscal 2003)



Disposal of Bauxite Residue through Sea-dumping



• Numerical values appearing inside the parentheses are the index values (2000=100)

PCB waste storage and control as of the end of fiscal 2003

(Non-consolidated & Consolidated)

	Number of Units of PCB Waste	PCB Volume (m ³)
Non-consolidated	749 (710 Stored/39 In Use)	42.1
Consolidated	979 (930 Stored/49 In Use)	45.4

Number of Refrigeration Units in Use that Use Specific CFCs as of the End of Fiscal 2003

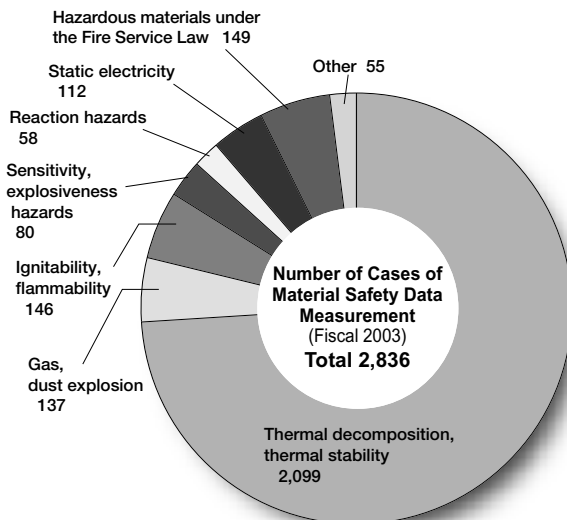
(Non-consolidated & Consolidated)

Type	Non-consolidated	Consolidated
	Number of Units	
CFC11	26	30
CFC12	17	103
CFC113	0	0
CFC114	0	0
CFC115	0	8
Total	43	141

3 Process Safety and Disaster Prevention

Results of Material Safety Data Measurement

The Safety Engineering Laboratory at the Ehime Process & Production Technology Center studies and assesses process safety, researches safety measures, measures and evaluates material safety data, compiles a database on safety technologies, and undertakes training for safety engineers in order to enhance process safety management and prevent such accidents as fires and explosions. The total number of material safety data measurements in fiscal 2003 reached 2,836 cases, an increase of 335 cases on the previous year. Examination of thermal decomposition and thermal stability is accountable for 74% of these measurements.



4 Audit

Results

In fiscal 2003, the Company conducted audits at five works (including some laboratories within the works compounds), one research laboratory, five business divisions, and ten domestic and overseas Group affiliate facilities. The second round of audits of the 35 domestic Group companies began in fiscal 2002.

Responsible Care Audit Results (Past Five Years)

Facilities		1999	2000	2001	2002	2003
EH&S Audits	Works *	5	4	5	4	5
	Laboratories	0	2	1	0	1
	Distribution Center	0	0	0	1	0
	Business Divisions	4	4	4	5	5
	Group Companies (Japan)	5	22	16	9	8
	Group Companies (Overseas)	0	0	2	1	2
Management Audits	Works and Laboratories	5	6	6	5	6

* Including laboratories within the works compounds

Observations

Having completed its ninth round of Responsible Care audits, Sumitomo Chemical is pleased to report that increasingly fewer areas for improvement are being pointed out and are being superseded with many more mentions of the excellent initiatives being undertaken. Given the relatively short time since the introduction of Responsible Care measures at Group companies, the Sumitomo Chemical Responsible Care audits showed that a portion of these companies and plants were still in the system-creation phase. On the other hand, some companies and plants within the Group are achieving worldwide standards, having obtained ISO9001 and ISO14001 certification and GMP compliance. Consequently, a substantial difference can be seen among the companies in terms of the progress being made by Group affiliates. In fiscal 2003, some of the companies and facilities that were slow to introduce the Responsible Care system realized rapid progress, as a result of their own efforts and with Sumitomo Chemical's support.

Fiscal 2003 Environment, Health & Safety Audits

Facilities	5 Works, 1 Laboratory	5 Business Divisions
Good (Important)	25	12
Needs Improvement	92	35
Needs to be Examined	105	25