Environmental Data

【Period】 • April, 2018 to March, 2019
【Air】 • Units are as follows: NOx = ppm, PM (particulate matter) = mg/Nm³ • ND: below the minimum determination limit (not detected)
• Values shown in the results column are averages of the results of the measurements.
【Water】 • Units are all in mg/L except for pH • pH: hydrogen ion concentration • BOD: Biochemical Oxygen Demand • SS: concentration of suspended solids in water
• ND: below the minimum determination limit (not detected) • Values shown in the results column are averages of the results of the measurements.
【Groundwater】 • Units are all in mg/L • ND: below the minimum determination limit (not detected).
【PRTR*Data】 • Units are in kg *Values less than 1kg are rounded up if ≥0.5 and down if 0.5. There are some cases in which values for total volume and volume handled are not in agreement.
【Data for use of resources /volume emitted】 • Units are: t/year for waste, t-CO_2/year for greenhouse gas and 10,000m³/year for water.

*Pollutant Release and Transfer Register (the registration system monitoring emissions of substances that pollute the environment and moves/transfers of them)

Data on Main Domestic Plants : Toyoda Gosei Co., Ltd.

Haruhi Plant

1 Haruhinagahata
Kiyosu, Aichi, Japan
452-8564

Main Products

• Functional Parts

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (city gas)	0.1	ND
	Co-generation (city gas)	0.05	ND
NOx	Boilers (city gas)	150	44
	Co-generation (city gas)	600	160

■ Groundwater

Item measured	Environmental Standard	Result
Trichloroethylene	0.03	ND～0.002
Cis-1,2-Dichloroethylene	0.04	ND～0.005

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.8～8.6	7.4
BOD (Biochemical Oxygen Demand)	25	5.4
SS	30	2.4
Oil content	5	ND
Total nitrogen	120	1.9
Total phosphorus	16	0.5
Thiram	0.06	ND

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance number (Item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
2-Imidazolidin thionate	42	2,133	0	0	0	0	320	0	0	1,813
Thiram	268	3,218	0	0	0	0	174	0	0	3,044

■ Data for use of resources/volume emitted

Category		Result
Waste	Volume generated	1,642
	Volume emitted	1,037
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	12,600
Water	Volume used	28.7

Morimachi Plant

1310-128
Mutsumi, Mori,
Shuchi, Shizuoka,
Japan
437-0213

Main Products

• Weatherstrips
• Functional Parts

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (heavy oil)	0.1	0.01
NOx	Boilers (heavy oil)	120	20

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.8～8.6	7.5
BOD (Biochemical Oxygen Demand)	25	5.8
SS	50	4.5
Oil content	5	ND
Thiram	0.06	ND
Zinc	2	0.17

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance number (Item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Antimony and its compounds	31	4,094	0	0	0	0	205	41	0	3,848
2-Imidazolidin thionate	42	4,408	0	0	0	0	176	176	0	4,055
Ethylbenzene	53	8,884	5,970	0	0	0	1,102	1,386	0	426
Xylene	80	10,431	7,036	0	0	0	1,320	1,614	0	461
Disulfiram	259	2,059	0	0	0	0	111	0	0	1,948
Thiuram	268	10,503	0	0	0	0	567	0	0	9,936
Toluene	300	31,299	15,754	0	0	0	5,655	9,062	0	828
Jiram	328	4,574	0	0	0	0	183	183	0	4,208
Methylenebis (4,1-phenylene) = diisocyanate	448	2,459	0	0	0	0	246	0	0	2,213
2-Mercaptobenzothiazole	452	33,403	0	0	0	0	1,804	0	0	31,599

■ Data for use of resources/volume emitted

Category		Result
Waste	Volume generated	5,765
	Volume emitted	4,456
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	22,800
Water	Volume used	15.2

Heiwacho Plant

710 Origuchi, Shimomiyake, Heiwa, Inazawa, Aichi, Japan 490-1312

Main Products

- Functional Parts
- Safety System Products
- Optoelectronic Products

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (heavy oil)	0.15	ND
	Boilers (city gas)	0.05	ND
	Co-generation (city gas)	0.05	ND
NOx	Boilers (heavy oil)	140	74
	Boilers (city gas)	120	38
	Co-generation (city gas)	200	140

■ No violations of laws, etc. ■ No complaints

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	1,733
	Volume emitted	420
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	18,000
	PFC emissions	0
	HFC emissions	0
Water	Volume used	13.1

■ Water (Sewerage Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5～9	7.4
BOD (Biochemical Oxygen Demand)	600	75
SS	600	74.9
Oil content	30	3.9
Total nitrogen	240	22.2
Total phosphorus	32	2.2
Fluorine	8	0.03

Inazawa Plant

1 Komeyasakai, Kitajima, Inazawa, Aichi, Japan 492-8542

Main Products

- Interior and Exterior Parts

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
NOx	Boilers (city gas)	150	43
	Co-generation (city gas)	600	185

■ Groundwater

Item measured	Environmental Standand	Result
Trichloroethylene*1	0.03	ND
Cis-1.2-Dichloroethylene*1	0.04	ND～0.007

*1 Substances that have no record of being used.

■ No violations of laws, etc. ■ No complaints

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.8～8.6	7.2
BOD (Biochemical Oxygen Demand)	25	7.5
SS	30	1.8
Oil content	5	ND
Total nitrogen	120	23.7
Total phosphorus	16	0.78
Hexavalent chromium	0.5	ND
Total chromium	2	0.06
Copper	1	0.14
Fluorine	15	0.08
Boron	30	3

■ PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	2,775	1,500	0	0	0	435	194	0	645
Xylene	80	4,220	2,419	0	0	0	600	295	0	906
Chromium and trivalent chromium compounds	87	3,415	0	27	0	0	2,705	0	0	683
Hexavalent chromium compounds	88	3,415	0	0	0	0	0	0	3,415	0
Copper water-soluble salts (excluding complex salts)	272	8,170	0	82	0	0	0	0	8,088	0
Toluene	300	33,248	19,725	0	0	0	4,456	2,327	0	6,741
Nickel	308	94,111	0	0	0	0	0	0	94,111	0
Nickel compounds	309	96,727	0	19	0	0	12,555	0	0	84,152
Bis (2-ethylhexyl) phthalate	355	3,942	0	0	0	0	276	0	0	3,666
Perammonium diammonium sulfate	395	7,475	0	0	0	0	0	0	7,475	0
Boron compound	405	1,961	0	20	0	0	0	0	1,941	0

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	4,098
	Volume emitted	1,901
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	20,200
Water	Volume used	46.8

Bisai Plant

40
Higashishimoshiro,
Meichi, Ichinomiya,
Aichi, Japan
494-8502

Main Products

- Interior and Exterior Parts
- Safety System Products

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (city gas)	0.1	ND
	Co-generation (city gas)	0.05	ND
NOx	Boilers (city gas)	150	36
	Co-generation (city gas)	600	150

■ Water (Sewerage Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.7～8.7	7.2
BOD (Biochemical Oxygen Demand)	300	89.9
SS	300	45.8
Oil content	30	3.7

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	7,320	4,392	0	0	0	952	512	0	1,464
Xylene	80	8,770	5,262	0	0	0	1,140	614	0	1,754
1,3,5-Trimethylbenzene	297	1,339	804	0	0	0	174	94	0	268
Toluene	300	30,055	18,159	0	0	0	3,929	2,066	0	5,902
Methylenebis (4,1-phenylene) = diisocyanate	448	157,859	0	0	0	0	578	0	0	157,282

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	1,431
	Volume emitted	347
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	15,500
	SF_6 emissions	3,400
Water	Volume used	10.7

Seto Plant

141 Sosaku,
Seto, Aichi, Japan
489-0843

Main Products

- Interior and Exterior Parts

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (kerosene)	0.2	ND
NOx	Boilers (kerosene)	150	73

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.8～8.6	7.3
BOD (Biochemical Oxygen Demand)	20	1.2
SS	20	0.3
Total nitrogen	10	1.8
Total phosphorus	4	0.01

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Xylene	80	5,653	226	0	0	0	40	22	5,303	62
1,2,4-Trimethylbenzene	296	6,168	46	0	0	0	0	0	6,122	0
Toluene	300	1,630	978	0	0	0	212	114	0	326
Methylenebis (4,1-phenylene) = diisocyanate	448	64,614	0	0	0	0	6,461	0	0	58,153

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	791
	Volume emitted	227
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	5,400
Water	Volume used	2.8

Kanagawa Plant

19-5 Suzukawa,
Isehara, Kanagawa,
Japan
259-1146

Main Products

- Interior and Exterior Parts
- Functional Parts

■ No violations of laws, etc. ■ No complaints

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	18
	Volume emitted	14
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	600
Water	Volume used	0.2

Kitakyushu Plant

1-2 Kitahoraoka Maeda, Yahata-higashi, Kitakyushu, Fukuoka, Japan 805-0058

Main Products

- Interior and Exterior Parts
- Weatherstrips
- Functional Parts
- Safety System Products

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	1,838	1,103	0	0	0	238	128	0	368
Xylene	80	2,561	1,247	0	0	0	310	649	0	355
Chromium and trivalent chromium compounds	87	3,484	0	0	0	0	2,787	0	0	697
Hexavalent chromium compounds	88	3,483	0	0	0	0	0	0	3,483	0
Toluene	300	20,635	9,802	0	0	0	2,482	5,627	0	2,723
Nickel	308	36,563	0	0	0	0	0	0	36,563	0
Nickel compounds	309	36,563	0	0	0	0	4,753	0	0	31,810

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	2,497
	Volume emitted	1,842
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	8,200
Water	Volume used	2.8

Fukuoka Plant

2223-1 Kurahisa, Miyawaka, Fukuoka, Japan 823-0017

Main Products

- Interior and Exterior Parts

■ No violations of laws, etc. ■ No complaints

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
pH	5.8～8.6	7.6
BOD (Biochemical Oxygen Demand)	10	0.3
SS	25	0.3
Oil content	2	ND

■ PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	7,345	4,407	0	0	0	955	514	0	1,469
Xylene	80	9,089	5,453	0	0	0	1,182	636	0	1,818
Toluene	300	18,229	10,937	0	0	0	2,370	1,276	0	3,646

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	1,570
	Volume emitted	254
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	4,900
Water	Volume used	2.1

Saga Plant

9966-9 Kawako, Wakaki, Takeo, Saga, Japan 843-0151

Main Products

- Interior and Exterior Parts
- Safety System Products

■ Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (city gas)	0.1	ND
NOx	Boilers (city gas)	150	36

■ Water (Water Pollution Control Law, prefectural regulations, etc.)

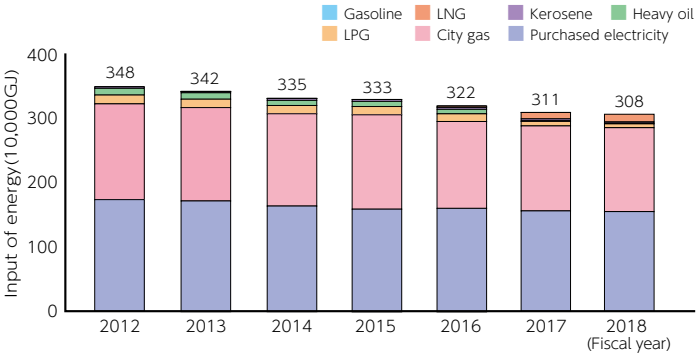
Item measured	Regulation value	Result
pH	5.8～8.6	7.1
BOD (Biochemical Oxygen Demand)	20	1.2
SS	50	1.1
Oil content	5	0.5

■ No violations of laws, etc. ■ No complaints

■ Data for use of resources / volume emitted

Category		Result
Waste	Volume generated	35
	Volume emitted	16
	Final volume disposed	0
Greenhouse gas	CO_2 emissions	3,500
	PFC emissions	0
Water	Volume used	2.2

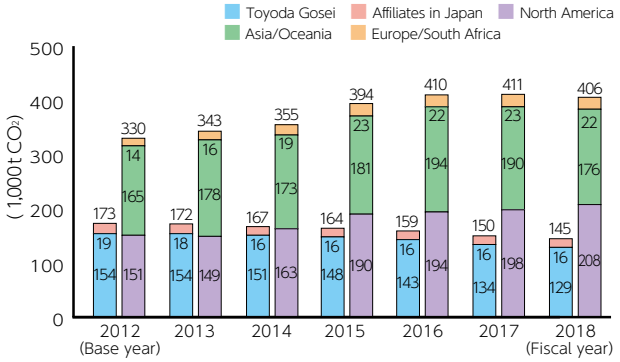
Input of energy : Toyoda Gosei Co., Ltd.

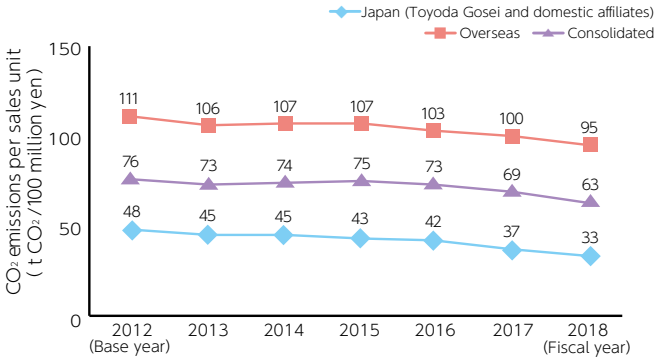


Data on CO_2 Emissions, Waste Volume and Water Use

These data may differ in parts from the data in the Toyoda Gosei Report, as they include data from a larger number of companies

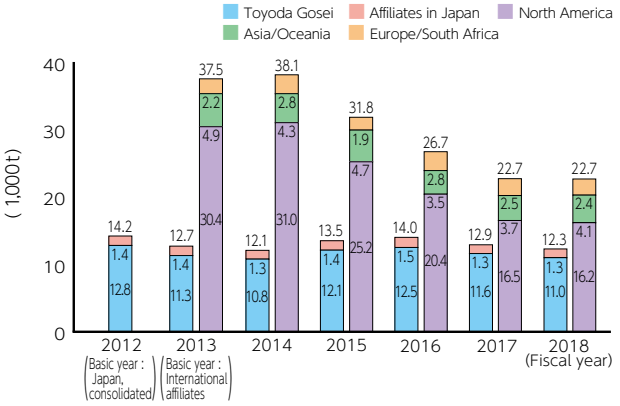
CO_2 emissions / CO_2 emissions per sales unit trends (attributable to energy)

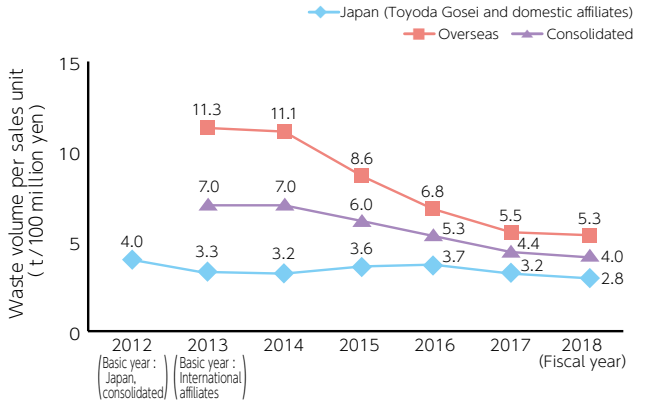




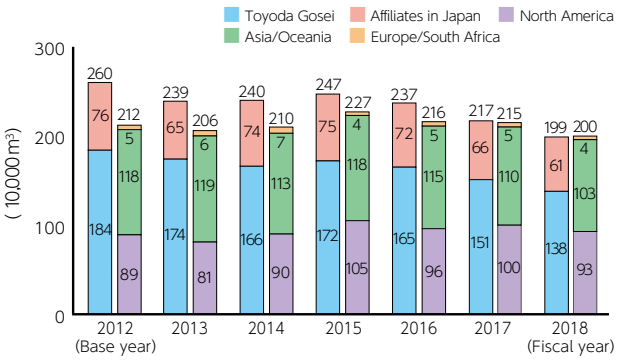
・CO_2 conversion calculation: International locations GHG Protocol (2001)
Locations in Japan 1990 Keidanren factor fixed value

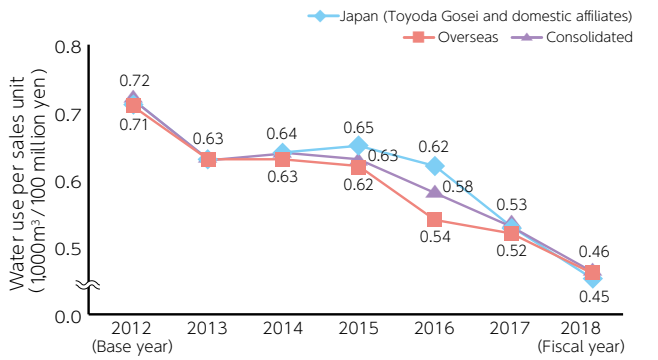
Waste volume / Waste volume per sales unit trends





Water use / Water use per sales unit trends





Chemical Substance Handling and Emissions Volumes (Japanese and Overseas Affiliates)

The Toyoda Gosei Goup manages chemical substance handling volumes, emissions volumes, movement volumes, and VOC emissions volumes based on the laws of each country at our affiliates worldwide.

Affiliates in Japan

Japan, 2 companies

Applicable regulations: Laws related to improved monitoring and management of the amounts of specified chemical substances released into the environment

Hinode Gomu Kogyo Co., Ltd.

(Unit : kg/year)

Name of chemical substance	Substance number (item number)	Amount handled	Volume emitted			Volume moved	
			Into air	Into water	Into ground	Volume moved via sewers	Volume moved as waste
Thiram	268	6,836	0	0	0	0	34

Kaiyo Gomu Kogyo Co., Ltd.

(Unit : kg/year)

Name of chemical substance	Substance number (item number)	Amount handled	Volume emitted			Volume moved	
			Into air	Into water	Into ground	Volume moved via sewers	Volume moved as waste
Thiram	268	1.352	0	0	0	0	41

International affiliates

USA, 1 company TG Missouri Corporation

Applicable regulation: Toxic Release Inventory
NA: Not applicable

(Unit : lbs/year)

	(8.1a) Own company landfill	(8.1b) Other own company emissions (air, water, etc.)	(8.1c) Another company landfill	(8.1d) Other emissions in another company (air, water, etc.)	(8.2) Own company heat recovery	(8.3) Another company heat recovery	(8.4) Own company recycle	(8.5) Another company recycle	(8.6) Own company disposal	(8.7) Another company disposal
Chrome	NA	NA	NA	NA	NA	NA	NA	447,583	NA	NA
Copper	NA	526	NA	4,953	NA	NA	NA	306,562	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	219,364	NA	NA
Nickel	NA	1,094	NA	3,735	NA	NA	NA	489,224	NA	NA
Nitric acid	NA	788	NA	NA	NA	NA	NA	NA	NA	58,700
ammonia	NA	NA	NA	NA	NA	NA	NA	20,801	NA	8,440
Diisocyanate	NA	NA	NA	NA	NA	8,200	NA	NA	NA	NA
lead	NA	NA	NA	NA	NA	NA	NA	375*	NA	NA

8.1a : Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills.
8.1b : Total other on-site disposal or other releases.
8.1c : Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills.
8.1d : Total other off-site disposal or other releases.
8.2 : Quantity Used for Energy Recovery Onsite.
8.3 : Quantity Used for Energy Recovery Offsite.
8.4 : Quantity Recycled Onsite.
8.5 : Quantity Recycled Offsite.
8.6 : Quantity Treated Onsite.
8.7 : Quantity Treated Offsite.
* Contained in aluminum ingot, content is 0.05% or less

Canada, 1 company Waterville TG Inc.

Applicable regulations:
National Pollutants Release Inventory

(Unit : t/year)

VOC emissions	45

Taiwan, 1 company Fong Yue Co., Ltd.

Applicable regulations:
Air Pollution Control Act

(Unit : t/year)

VOC emissions	55

Chemical substance reduction targets

We are working toward a target of totally eliminating phthalic acid by 2019 based on overseas law.