# **Environmental Data**

[ Period] • April, 2021 to March, 2022
[ A i r ] • Units are as follows: NOx = ppm, PM (particulate matter) = mg/Nm • ND: below the minimum determination limit (not detected)

• Values shown in the results column are averages of the results of the measurements.

[ W a t e r ] • 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  $\geq$ 0.5 and down if 0.5. There are some cases in which values for total volume and volume handled are not in agreement.

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

## Haruhi **Plant**

1 Haruhinagahata Kiyosu, Aichi, Japan 452-8564

• 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	46
	Co-generation (city gas)	600	76

■ Groundwater

Item measured	Environmental Standand	Result
Trichloroethylene	0.03	ND~0.01
Cis-1,2-Dichloroethylene	0.04	ND~0.01

■ No violations of laws, etc. ■ No complaints

■ PRTR Data

Substance name	Substance			Volume emitted		Volume moved		Volume	Total	Total
Substance name	(item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	removed (processed)	(products)
2-Imidazolidin thionate	42	1,546	0	0	0	0	232	0	0	1,314
Xylene	80	1,051	596	0	0	0	148	307	0	0
Thiram	268	2,666	0	0	0	0	144	0	0	2,522

■ Data for use of resources/volume emitted

Cat	tegory	Result
Waste	Volume generated	1,399
	Volume emitted	525
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	12,479
Water Volume used		21.2

#### Morimachi **Plant**

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

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

Item measured		Regulation value	Result
Dust	Boilers (heavy oil)	0.1	0
NOx	Boilers (heavy oil)	120	22

■ No violations of laws, etc. ■ No complaints

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

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

5.8~8.6

25

30

5

120

16

0.06

7.5

5.2

2.4

1.4

0.5

ND

ND

рН

Oil content

Thiram

Total nitrogen

Total phosphorus

BOD (Biochemical Oxygen Demand)

Item measured	Regulation value	Result
рН	5.8~8.6	7.4
BOD (Biochemical Oxygen Demand)	25	4.7
SS	50	5.16
Oil content	5	ND
Thiram	0.06	ND
Zinc	2	0.16

#### ■ PRTR Data

Substance name	Substance	number Alliount		Volume emitted		Volume moved		Volume	Total removed	Total consumed
Substance name	(item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Antimony and its compounds	31	5,788	0	0	0	0	289	58	0	5,441
2-Imidazolidin thionate	42	3,248	0	0	0	0	130	130	0	2,989
Ethylbenzene	53	4,866	3,270	0	0	0	603	759	0	234
Xylene	80	5,837	3,946	0	0	0	748	898	0	244
Disulfiram	259	1,168	0	0	0	0	63	0	0	1,105
Thiuram	268	6,527	0	0	0	0	352	0	0	6,174
Toluene	300	25,816	11,986	0	0	0	5,203	8,086	0	541
Jiram	328	2,610	0	0	0	0	104	104	0	2,401
Methylenebis (4,1-phenylene) = diisocyanate	448	3,345	0	0	0	0	37	0	0	3,308
2-Mercaptobenzothiazole	452	21,285	0	0	0	0	1,149	0	0	20,136

■ Data for use of resources/volume emitted

Cat	egory	Result
Waste	Volume generated	3,619
	Volume emitted	2,603
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	21,547
Water	Volume used	12.2

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

## Heiwacho Plant

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

- Functional PartsSafety System ProductsOptoelectronic Products

### lacktriangledown Air (Air Pollution Control Law, prefectural regulations, etc.)

Item measured		Regulation value	Result
Dust	Boilers (heavy oil)	0.15	-
	Boilers (city gas)	0.05	ND
	Co-generation (city gas)	0.05	_
NOx	Boilers (heavy oil)	140	_
	Boilers (city gas)	120	29
	Co-generation (city gas)	200	46

- $\blacksquare$  No violations of laws, etc.  $\blacksquare$  No complaints
- Data for use of resources / volume emitted

Ca	itegory	Result
Waste	Volume generated	1,756
	Volume emitted	354
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	17,126
	PFC emissions	190
	HFC emissions	31
Water	Volume used	10.8

## $\blacksquare$ Water (Sewerage Law, prefectural regulations, etc.)

Regulation value	Result
5~9	7.3
600	89
600	56.3
30	4.1
240	20.2
32	1.8
8	0.08
	5~9 600 600 30 240 32

## Inazawa Plant

Kitajima, Inazawa, Aichi, Japan 492-8542

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

Item measured		Regulation value	Result
NOx	Boilers (city gas)	150	40
	Co-generation (city gas)	600	0

#### ■ Groundwater

Item measured	Environmental Standand	Result
Trichloroethylene*1	0.03	ND
Cis-1.2-Dichloroethylene*1	0.04	$ND \sim 0.01$

- \*1 Substances that have no record of being used.
- $\blacksquare$  No violations of laws, etc.  $\blacksquare$  No complaints

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

Item measured	Regulation value	Result
pH	5.8~8.6	7.1
BOD (Biochemical Oxygen Demand)	25	7.2
SS	30	1.9
Oil content	5	ND
Total nitrogen	120	22.9
Total phosphorus	16	0.78
Hexavalent chromium	0.5	ND
Total chromium	2	0.05
Copper	1	0.17
Fluorine	15	0.10
Boron	30	3

#### ■ PRTR Data

Substance name	Substance Amount		Volume emitted			Volume moved		Volume		Total
Substance name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	removed (processed)	(products)
Ethylbenzene	53	5,640	3,021	0	0	0	898	395	0	1,326
Xylene	80	6,771	3,815	0	0	0	992	474	0	1,489
Chromium and trivalent chromium compounds	87	3,863	0	31	0	0	3,059	0	0	773
Hexavalent chromium compounds	88	4,002	0	0	0	0	0	0	4,002	0
Copper water-soluble salts (excluding complex salts)	272	5,602	0	56	0	0	0	0	5,546	0
Toluene	300	32,730	19,409	0	0	0	4,376	2,291	0	6,654
Nickel	308	88,323	0	0	0	0	0	0	88,323	0
Nickel compounds	309	90,688	0	18	0	0	11,771	0	0	78,898
Perammonium diammonium sulfate	395	4,900	0	0	0	0	0	0	4,900	0
Boron compound	405	1,603	0	16	0	0	1,587	0	0	0

#### ■ Data for use of resources/volume emitted

Ca	itegory	Result	
Waste	Volume generated	2,064	
	Volume emitted	934	
	Final volume disposed	0	
Greenhouse gas	CO <sub>2</sub> emissions	18,270	
Water	Volume used	43.7	

## **Bisai Plant**

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

## lacksquare Air (Air Pollution Control Law, prefectural regulations, etc.)

It	em measured	Regulation value	Result
Dust	Boilers (city gas)	0.1	ND
	Co-generation (city gas)	0.05	ND
NOx	Boilers (city gas)	150	28
	Co-generation (city gas)	600	170

■ No violations of laws, etc. ■ No complaints

#### ■ PRTR Data

Cubatanaa nama	Substance Amount		Volume emitted			Volume moved		Volume	Total	Total
Substance name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	removed (processed)	consumed (products)
Ethylbenzene	53	8,114	4,868	0	0	0	1,055	568	0	1,623
Xylene	80	9,463	5,678	0	0	0	1,230	662	0	1,893
1,3,5-Trimethylbenzene	297	1,631	979	0	0	0	212	114	0	326
Toluene	300	33,669	20,277	0	0	0	4,390	2,334	0	6,668
Methylenebis (4,1-phenylene) = diisocyanate	448	106,588	0	0	0	0	1,172	0	0	105,415

#### ■ Data for use of resources/volume emitted

Cat	egory	Result
Waste	Volume generated	954
	Volume emitted	276
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	15,179
	SF <sub>6</sub> emissions	0
Water	Volume used	6.9

## **Seto Plant**

Seto, Aichi, Japan 489-0843

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

Item measured		Regulation value	Result
Dust	Boilers (kerosene)	0.2	_
	Boilers (heavy oil)	0.1	ND
NOx	Boilers (kerosene)	0.2	_
	Boilers (heavy oil)	150	33

■ No violations of laws, etc. ■ No complaints

#### ■ PRTR Data

Substance name nur		Amount	Volume emitted			Volume moved		Volume	Total	Total
Substance name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	removed (processed)	(products)
Toluene	300	2,588	1,553	0	0	0	336	181	0	518
Methylenebis (4,1-phenylene) = diisocyanate	448	26,135	0	0	0	0	2,613	0	0	23,521

рΗ

BOD (Biochemical Oxygen Demand)

Total nitrogen

Total phosphorus

### ■ Data for use of resources/volume emitted

Cat	egory	Result
Waste	Volume generated	449
	Volume emitted	232
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	4,349
Water	Volume used	1.7

vvater (Sewerage Law, prefectural regulations, etc.)							
Item measured	Regulation value	Result					
рН	5.7~8.7	7.2					
BOD (Biochemical Oxygen Demand)	300	56.9					
SS	300	37.8					
Oil content	30	4.5					

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

5.8~8.6

20

20

10

4

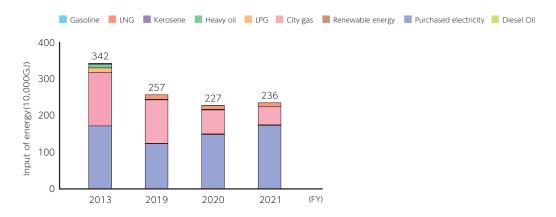
0.5

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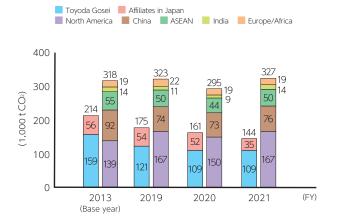
## Input of energy: Toyoda Gosei Co., Ltd.



## ■ Data on CO₂ Emissions

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

#### ■ Data on CO2 Emissions(Scope1, 2)



#### CO<sub>2</sub> emissions factors in Japan

Emission factor by electric power company (for the calculation of greenhouse gas emissions of specified emitters)—2018 results

January 7, 2020 Ministry of the Environment announcement: Adjusted emissions factors " $CO_2$  emissions factors by menu (residual error)"

List of calculation methods/emissions factors in calculations, reports, public announcements

City gas is data published by companies

## $\mbox{CO}_2$ emissions factors in other countries

 $^{\circ}$ CO $_2$  Emissions from Fuel Combustion,  $^{\circ}$  2018 edition, IEA, Paris, France (used in 2016 conversion factor)

2017 Annual Emission Reduction Project China Regional Grid Baseline Emission Factors (average of EFgrid, OM, y and EFgrid, BM, y)

Data published by power companies

IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds).

Published: IGES, Japan.

■ Water use

## ■ Data on 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

#### ■ Waste volume Toyoda Gosei 📕 Affiliates in Japan ■ North America ■ Asia/Oceania ■ Europe/South Africa 30 21.0 20 (1,000t) 18.5 16.3 11.1 3.7 9.5 9.4 10 3.9 3.6 14.9 3.9 12.5 0 (FY) 2012 2019 2020 2021 (Base year: Toyoda Gosei)

#### Toyoda Gosei Affiliates in Japan ■ North America ■ Asia/Oceania ■ Europe/South Africa 300 239 $(10,000 \, \text{m}^3)$ 200 65 188 179 172 162 159 159 62 4 4 48 47 86 87 85 100 74 126 114 81 88 81 70 0 2013 2019 2020 2021 (FY)