

Data

Scope of environmental management: All domestic offices of Taisho Pharmaceutical (such as the head office, five branch offices and one domestic office under their control, five logistics centers, three factories, and the Research Center) and Taisho Pharma Co., Ltd., MEJIRO KOSAN Co., Ltd., and Taisho Pharmaceutical Logistics Co., Ltd. out of its group companies are within the scope of environmental management.

Environmental Accounting

Environmental accounting is based on the calculations according to the Taisho Pharmaceutical Environmental Management Accounting Preparation Procedures (Rev. 2), which is based on Environmental Accounting Guidelines 2005 published by the Ministry of the Environment. [Target period: April 1, 2021 to March 31, 2022]

Environmental Conservation Costs

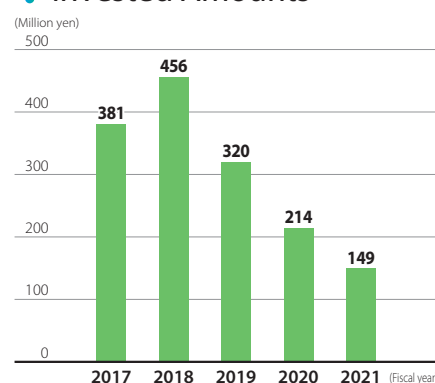
Category	Main initiative	Invested Amount (Million yen)	Cost (Million yen)
Costs in the business area		130	778
Breakdown	Pollution control cost	7	198
	Global environmental conservation cost	123	463
	Resource recycling cost	0	117
Up/Downstream cost	Outsourcing cost for recommodification of containers and packaging/ Waste product treatment	0	235
Management activity cost	Monitoring of environmental loads/ Compliance and operation of ISO 14001	12	67
Research and development cost	Research and development for environmentally friendly products/ Purchasing of raw materials for research	0	0
Social activity cost	Activity costs of and donation to industry groups	0	0
Environmental damage solution cost	Implementation of soil and groundwater pollution measures	7	27
Total		149	1,107

Environmental Conservation Effects

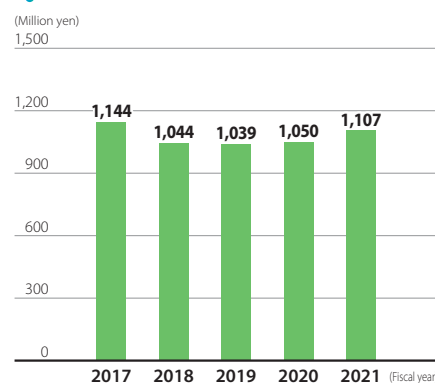
Details of effects		FY2020	FY2021	Reduced volume	Reduction rate (%)	
Effects on environmental conservation that correspond to the costs in the business area (Resources)	Total energy input (thousand GJ)	981	966	15	1.5	
	Breakdown	Power consumption (10,000 kWh)	6,279	6,114	165	2.6
		Usage of city gas (thousand m ³)	7,034	7,081	(47)	(0.7)
		Usage of Bunker A (kL)	1,270	1,245	25	2.0
		Usage of LPG (m ³)	639	682	(43)	(6.7)
		Usage of gasoline (kL)	1,600	1,630	(30)	(1.9)
		Usage of light fuel oil (kL)	0	0	0	0
	Breakdown	Usage of water (thousand m ³)	639	624	15	2.3
		Usage of groundwater	386	388	(2)	(0.5)
		Usage of tap water (domestic water)	222	212	10	4.5
		Usage of industrial water	27	22	5	18.5
		Usage of greywater (rain water)	4	2	2	50.7
		Transaction volume of specific chemical substances* (tons)	50	32	18	35.8
Effects on environmental conservation that correspond to the costs in the business area (Emissions)	Volume of CO ₂ emissions (tons)	51,887	50,085	1,802	3.5	
	Breakdown	Emission volume from production and office work activities	48,176	46,301	1,875	3.9
		Emissions volume from sales activities	3,711	3,784	(73)	(2.0)
	Total waste volume (tons)	3,952	3,660	292	7.4	
	Final landfill disposal volume (tons)	44	50	(6)	(13.6)	
	Total emission volume (thousand m ³)	429	415	14	3.3	

* Based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Invested Amounts



Costs



Economic Effects Regarding Environmental Conservation Costs

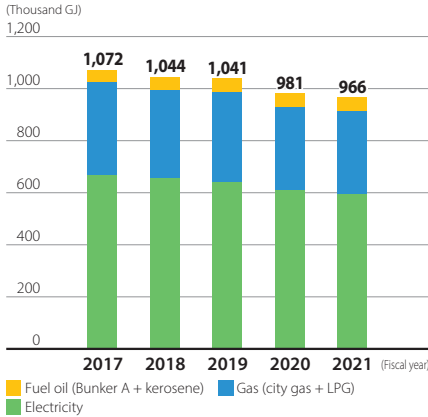
Details of effects	Amount (Million yen)	
Revenue	Economic income regarding recycling	0.8
Reduced cost	Reduced cost from energy saving	0.4
	Reduced cost from reduction of product containers	0.0
Total		1.2

Items	Amount (Million yen)
Total invested amount during the relevant period	16,880
Total R&D cost during the relevant period	19,366

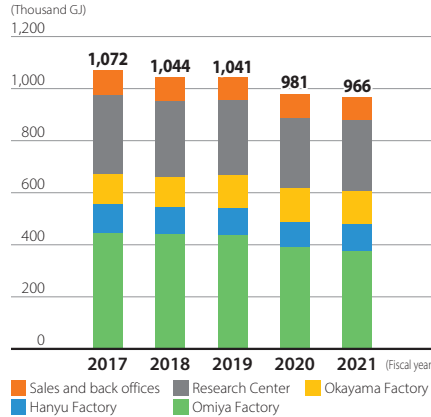
Resource Loading Volume

Energy

Energy Input (by Type)

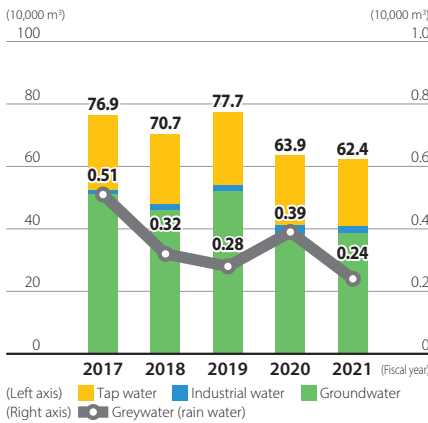


Energy Input (by Office)

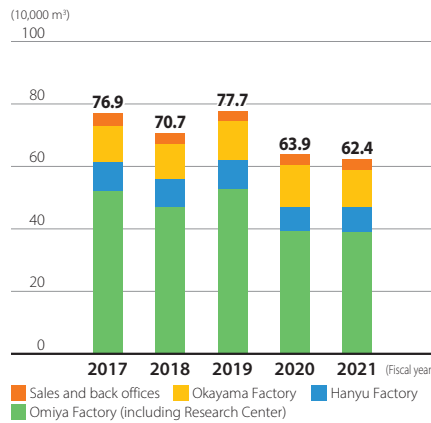


Water

Usage of Water (by Type)

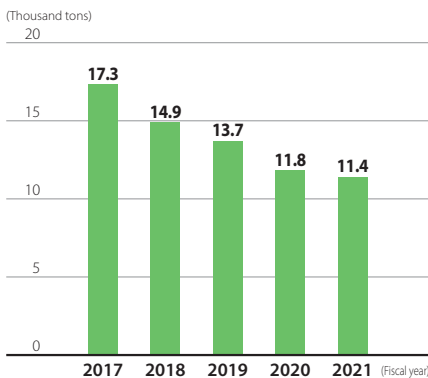


Usage of Water (by Office)

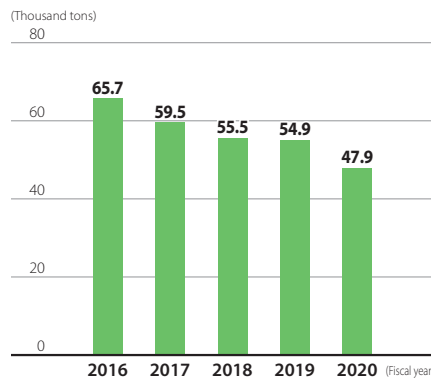


Raw Materials

Usage of Raw Materials

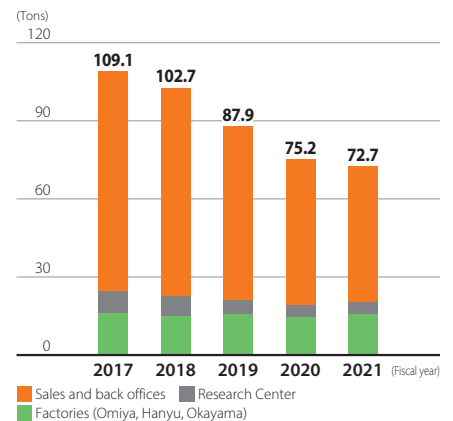


Usage of Materials (Four Materials Specified in the Containers and Packaging Recycling Act)



Copier Paper

Purchased Volume of Copier Paper



Chemical Substances

Transaction, Release, and Displacement Volumes of Chemical Substances Based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof—Omiya Factory (including Research Center)

No.	Chemical substance	Cabinet ordinance No.	Transaction volume	Release volume into the atmosphere	Release volume into public water	Displacement volume into the sewer	Release volume into soil	Decontamination treatment volume	Displacement volume to waste
1	Acetonitrile	013	4,100	2.0	0.0	0.0	0.0	0.0	4,100
2	Chloroform	127	2,400	2.6	0.0	42.0	0.0	0.0	2,400

(Unit: kg)

Transaction Volume of Specific Chemical Substances Based on the Ordinance on Living Environment Conservation in Saitama City (Article 74, Paragraph 2)—Omiya Factory (including Research Center)

No.	Chemical substance	Category of specific chemical substance	Transaction volume	Breakdown of the transaction volume		
				Usage	Produced volume	Transaction volume
3	Hydrogen chloride (including hydrochloric acid)	Other specific chemical substances (Item 5)	7,000	7,000	0	0
4	Methanol	Other specific chemical substances (Item 35)	3,800	3,800	0	0
5	Sulfuric acid (including sulfur trioxide)	Other specific chemical substances (Item 41)	670	670	0	0

No. 1 to 2 chemical substances are the same as specified in the notification that is based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

(Unit: kg)

Transaction, Release, and Displacement Volumes of Chemical Substances Based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof—Okayama Factory

No.	Chemical substance	Cabinet ordinance No.	Transaction volume	Release volume into the atmosphere	Release volume into public water	Displacement volume into the sewer	Release volume into soil	Decontamination treatment volume	Displacement volume to waste
1	Methylnaphthalene	438	13,760	68.8	0.0	0.0	0.0	0.0	0

(Unit: kg)

Transaction Volume of Specific Chemical Substances Based on the Ordinance on Living Environment Conservation in Saitama Prefecture—Hanyu Factory

No.	Chemical substance	Category of specific chemical substance	Transaction volume	Breakdown of the transaction volume		
				Usage	Produced volume	Transaction volume
1	Hydrogen chloride (including hydrochloric acid)	Other specific chemical substances (Item 5)	12,600	12,600	0	0

(Unit: kg)

Various Emissions

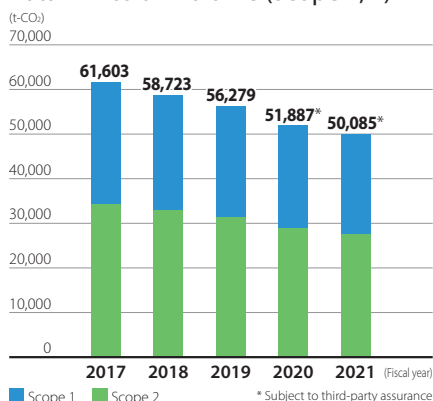
Factors used to calculate the CO₂ emission volume

Emission factors for CO₂ and energy are those from the Act on Promotion of Global Warming Countermeasures (List of calculation methods and emission factors on calculation, report, and publication methods)

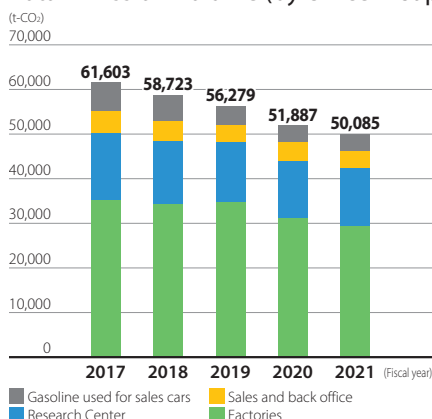
Electricity: Emission factors after adjustment for each electricity utility operator as specified by the Ministry of the Environment's paper on "Factors Related to Emissions by Electricity Utility Operators (for Calculating Carbon Dioxide Equivalents for Greenhouse Gas Emissions from Specified Emitters)"; Bunker A: 2.710 t-CO₂/kL; Light fuel oil: 2.585 t-CO₂/kL; Propane gas: 2.999 t-CO₂/t; City gas: 2.244 t-CO₂/1000 m³; Gasoline 2.322 t-CO₂/kL; Non-industrial steam: 0.057 t-CO₂/GJ

CO₂

Total Emission Volume (Scope 1, 2)



Total Emission Volume (by Office in Japan)



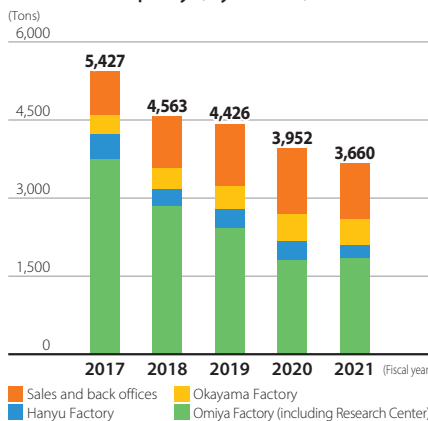
Calculation of CO₂ Emissions (Scope 3) within the Value Chain (Scope of Data Collection: Taisho Pharmaceutical Holdings (Offices in Japan))

Category	CO ₂ emission volume (t-CO ₂)		Basic unit of emissions, etc.
	FY2020	FY2021	
Scope 1	22,947	22,353	Uses global warming potential based on the Act on Promotion of Global Warming Countermeasures
Scope 2	28,940	27,732	
Scope 3			
1 Purchased products and services	88,999	81,264	Calculated by aggregating each purchased raw material, then multiplying by the basic units
2 Capital goods	42,792	47,764	Calculated by multiplying the amount of capital investment in the fiscal year by the basic units
3 Fuel and energy-related activity not included in Scope 1 and 2	4,329	4,211	Calculated by multiplying the amount of used electricity/heat by the basic units for the amount of energy used
4 Transport, delivery (upstream)	8,094	7,954	Calculated by multiplying the delivery volume from suppliers to factories, between factories, and from factories to shipping destinations by the basic units
5 Waste of business activities including manufacturing	525	835	Calculated by categorizing the waste generated by factories and research centers by treatment, then multiplying the weight of treated waste by the basic units
6 Business trips	538	461	Calculated by multiplying the expense amount supplied to use aircraft (domestic and overseas) by the basic units
7 Commute of employees	2,438	2,456	Calculated by multiplying the expense amount supplied for commuting expenses for each mode of transportation by the basic units
8 Lease asset (upstream)	Outside scope of calculation	—	
9 Transport, delivery (downstream)	Outside scope of calculation	—	
10 Manufacturing of sold products	Outside scope of calculation	—	
11 Usage of sold products	Outside scope of calculation	—	
12 Waste of sold products	936	905	Calculated by multiplying the usage amount of each material at the time of application under the Containers and Packaging Recycling Act by the basic units
13 Lease assets (downstream)	Outside scope of calculation	—	
14 Franchise	Outside scope of calculation	—	
15 Investment	Outside scope of calculation	—	

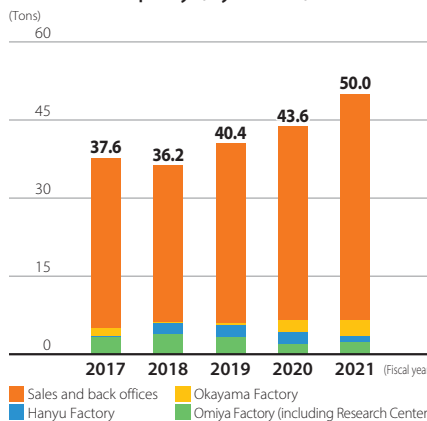
Basic units: Using a coefficient referenced from the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain (Ver. 3.2) and IDEA v2

Waste

Total Emission Volume—Whole Company (by Office)

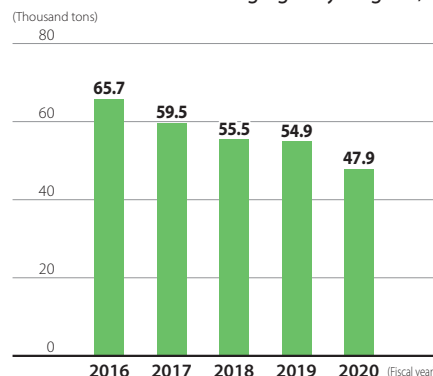


Final Landfill Disposal Volume—Whole Company (by Office)



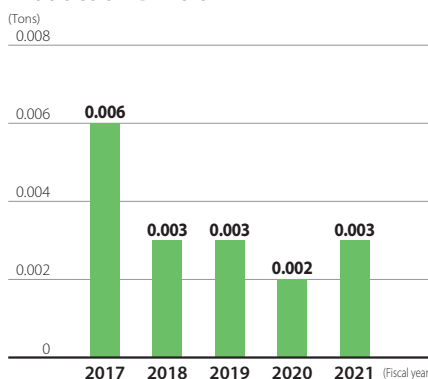
Data Associated with the Containers and Packaging Recycling Act

Usage of Materials (Four Materials Specified in the Containers and Packaging Recycling Act)

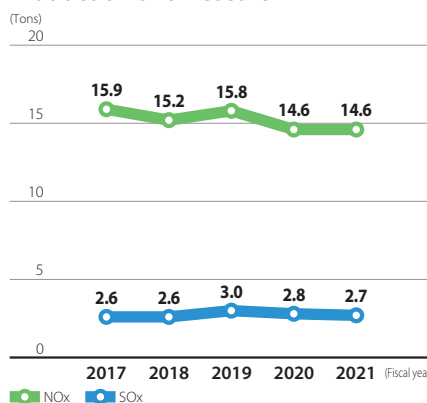


Emissions into the Atmosphere

Chloroform—Production Division

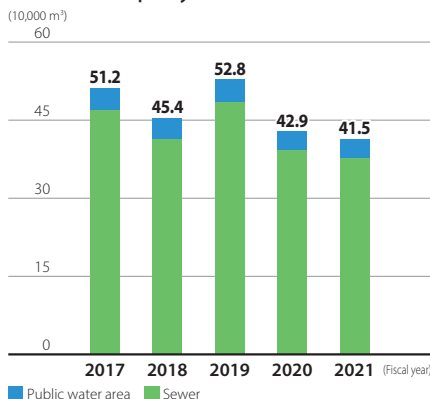


NO_x and SO_x Emission Volumes—Production and Research

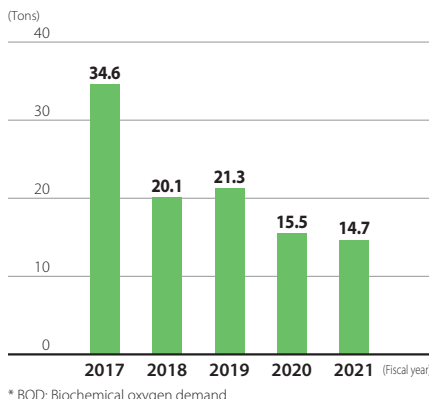


Water Quality

Total Emission Volume—Whole Company



BOD* Emission Volume—Production and Research



PCB Waste

PCB Waste and PCB Devices in Use

	Storage	Devices in use
Reagent	—	—
Low-pressure capacitor	—	—
High-pressure capacitor	—	—
Fluorescent ballast	—	—
Mercury lamp ballast	—	—
High-pressure transformer	1 device (low density)	11 devices (low density)

Data Associated with Sales and Transport

Conversion factors used to calculate CO₂ and NO_x emission volumes from the usages of gasoline and light fuel oil

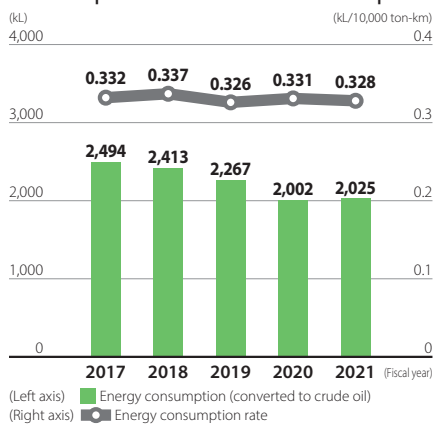
[CO₂ emission volume] Gasoline: 2.322 kg-CO₂/L; Light fuel oil: 2.585 kg-CO₂/L

(According to the Guidelines for Calculating CO₂ Emissions Caused by Energy in the Global Warming Countermeasures Planning System and Targeted Emission Volume Transaction System (Revised in June 2022) based on the Saitama Prefecture Ordinance to Promote Measures Against Global Warming)

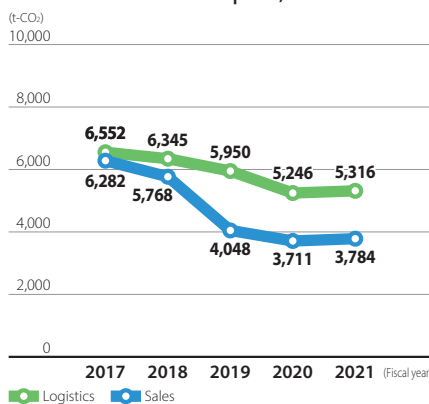
[NO_x emission volume] Gasoline: 8.2 kg/kL; Light fuel oil: 18.3 kg/kL

(According to the Environmental Activity Evaluation Program (Eco-Action 21), March 2001)

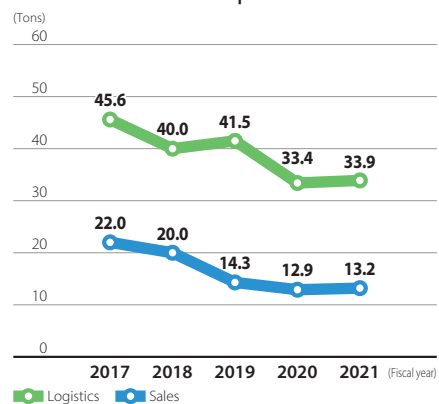
Energy Consumption and Specific Energy Consumption Associated with Transport



CO₂ Emission Volume Associated with Sales and Transport, etc.



NO_x Emission Volume Associated with Sales and Transport



Transported Quantity of Products by Transport Method

Fiscal year	2017		2018		2019		2020		2021	
	Transport amount (10,000 ton-km)	Percentage	Transport amount (10,000 ton-km)	Percentage	Transport amount (10,000 ton-km)	Percentage	Transport amount (10,000 ton-km)	Percentage	Transport amount (10,000 ton-km)	Percentage
Total transport amount	7,507	100.0	7,169	100.0	6,953	100.0	6,053	100.0	6,183	100.0
Truck	5,451	72.6	5,078	70.8	4,910	70.6	4,433	73.2	4,509	72.9
Railway	754	10.0	684	9.5	761	10.9	714	11.8	652	10.5
Ship	1,302	17.3	1,406	19.6	1,281	18.4	906	15.0	1,022	16.5

Data by Office

❁ Measurement Results of Regulated Items in FY2021

Omiya Factory (including Research Center)

Regulated item		Reference value	Actual value
Atmosphere	NOx	Once-through boiler	—
		Water-tube boiler	Less than 130 ppm
		Suction-type cool and warm water generator	Less than 150 ppm
		Gas turbine	Less than 70 ppm
Water quality	Industrial sewage	Hydrogen-ion concentration (pH)	More than 5–Less than 9
		Biochemical oxygen demand	Less than 600 mg/L
		Suspended solids	Less than 600 mg/L
		Nitrogen	Less than 240 mg/L
		Phosphorus	Less than 32 mg/L

Hanyu Factory

Regulated item		Reference value	Actual value
Atmosphere	NOx	Once-through boiler	—
		Dust	—
Water quality	Industrial sewage	Hydrogen-ion concentration (pH)	Not less than 5.8–not more than 8.6
		Biochemical oxygen demand	Less than 5 mg/L
		Suspended solids	Less than 10 mg/L
		Nitrogen	Less than 25 mg/L
		Phosphorus	Less than 3 mg/L

Okayama Factory

Regulated item		Reference value	Actual value
Atmosphere	NOx	Once-through boiler	65–93 ppm
		Dust	0.001–0.007 g/m ³ N
Water quality	Industrial sewage	Hydrogen-ion concentration (pH)	More than 5–Less than 9
		Biochemical oxygen demand	Less than 600 mg/L
		Suspended solids	Less than 600 mg/L
		Nitrogen	Less than 240 mg/L
		Phosphorus	Less than 32 mg/L

Data on Overseas Manufacturing Subsidiaries (Reference)

		PT. Taisho Pharmaceutical Indonesia Tbk	Hoepharm Holdings Sdn. Bhd.	Taisho Co., Ltd. Shanghai	Taisho Pharmaceutical (M) SDN. BHD.	Taisho Vietnam Co., Ltd.	Compañía Internacional de Comercio S.A.P.I. de C.V. (CICSA)	UPSA SAS	DHG
Energy consumption	Electricity (kWh)	3,175,410	3,370,627	1,057,200	705,591	958,302	1,100,400	34,233,271	25,861,352
	Heavy fuel oil (kL)	—	—	—	—	2	—	—	2,155
	Light fuel oil (kL)	2	—	234	—	1	—	5	23,000
	LPG (m ³)	5,462	—	—	—	9	3	—	16
	City gas (m ³)	—	—	—	109,306	—	—	1,684,500	—
	Wood chips	—	—	—	—	662	—	—	—
Waste volume	Recycled volume (tons)	84	26	19	—	19	4	998	456
	Incineration disposal volume (tons)	32	25	0	—	—	41	859	169
	Landfill disposal volume (tons)	—	—	—	—	—	576	—	—
Sewage water quality	Chemical oxygen demand (mg/L)	2–109	35–78	3–179	11–125	1–15	—	108–5,349	16–24
	Biochemical oxygen demand (mg/L)	1–36	15–39	—	4–46	2–13	—	23–1,860	6–16