



SANTEN PHARMACEUTICAL CO.,LTD.

Environmental Data Book 2015

Year Ended March 31, 2015

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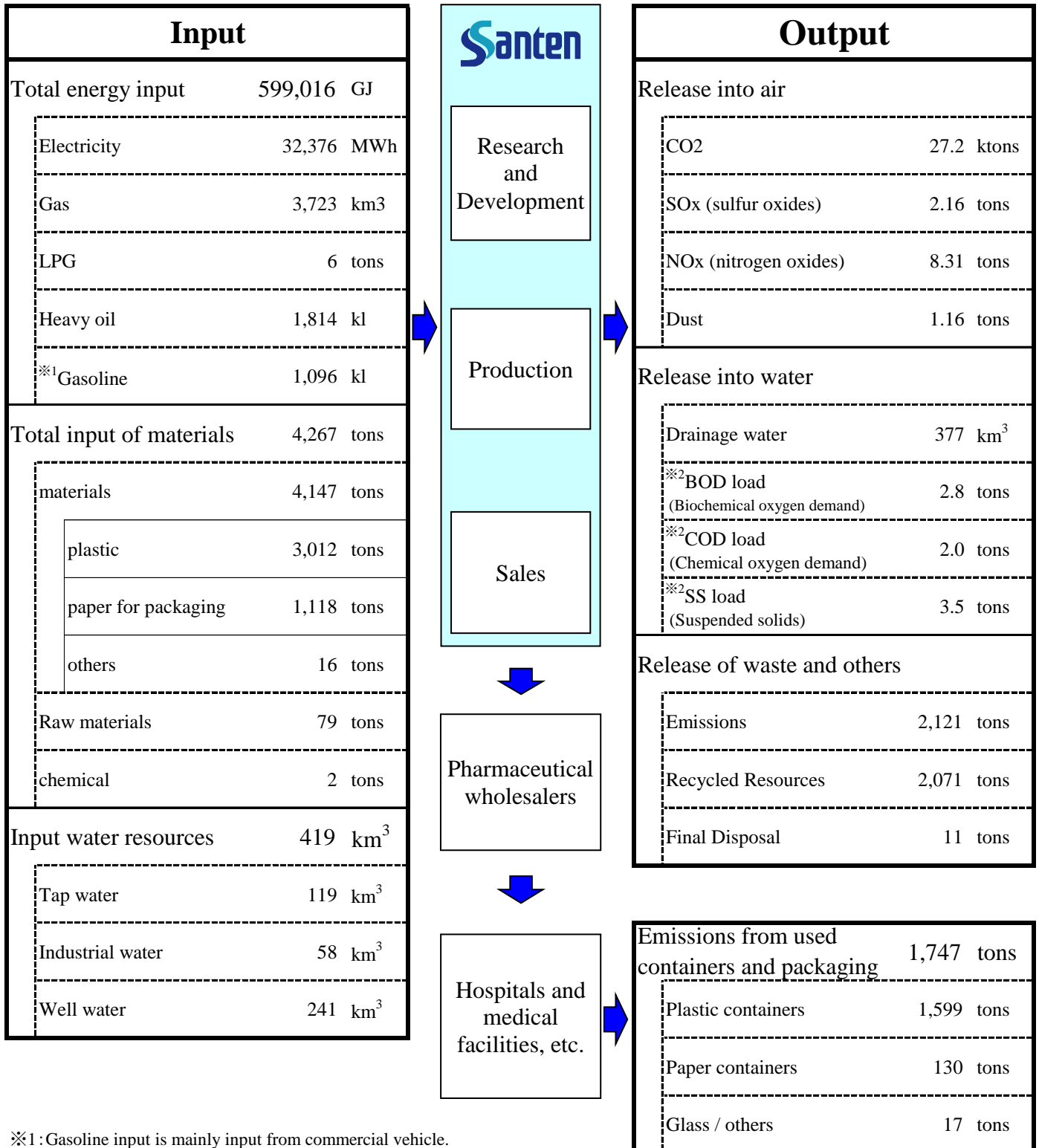
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Scope of reporting

This report primarily presents data of Santen Co., Ltd.
It also includes some data of Santen's subsidiaries.

Impact on the Environment

Santen works to determine the impact on the environment and acts continually for the reduction of environmental burdens regarding energy input, input of materials, input of water resources, emissions into air and water, and disposal of waste and others for general business.



*¹: Gasoline input is mainly input from commercial vehicle.

*²: Emission is based on results from regular examinations.

Environmental Accounting

For more efficient environmental management, Santen accepts the (economic and environmental preservation) effect and the cost (investment amount and expense) for environmental preservation efforts and works to reduce the effects on the environment.

Period covered: April 1st, 2014 to March 31st, 2015

Scope: The cost and effect of Environmental preservation in Santen

Reference: MOE Environmental Accounting Guideline (2005)

■ Environmental conservation costs

unit:millions of yen

Category	2014		2015	
	Investment	Expenses	Investment	Expenses
Business area costs	72.7	287.9	15.0	256.2
Pollution prevention	2.4	89.1	7.4	91.4
Global environmental conservation	12.8	116.1	7.6	102.7
Resource circulation	57.6	82.7	—	62.1
Upstream/downstream costs	—	15.3	—	19.9
Administration costs	1.2	93.3	—	120.0
R&D costs	—	—	—	—
Social activity costs	—	0.0	—	0.1
Environmental damage costs	—	—	—	—
Total	73.9	396.5	15.0	396.2

- Only the cases that can be determined as related to the purpose of environmental conservation are included in the calculation.
- The cost includes the depreciation amount and was accounted for in the same way as the accounting.
- Current investment includes both the investment amount and expense.
- Total number was only a rough estimation because the totals were rounded off.
- The employment cost of the environmental management department and operation and maintenance of the environmental management system was accounted for as administration costs.
- "—" means no cost or no activities.

■ Economic effects of environmental conservation measures

unit:millions of yen

Category	2014	2015
Profits from sales of waste etc	54.6	82.7
Cost reductions	13.6	15.4

- Only economic effects that can be determined with a high degree of certainty are included in the calculation.

■ Environmental conservation effect

Category	unit	Year ended March 31		Environmental conservation effect	%Change 2015/2014	
		2014	2015			
Energy	Total energy usage	GJ	564,792	599,016	34,224	6.1
	Electricity	MWh	31,011	32,376	1,365	4.4
	Gas	km ³	3,423	3,723	300	8.8
	LPG	tons	6	6	- 0	-1.1
	Heavy oil	kℓ	1,710	1,814	104	6.1
	Gasoline	kℓ	1,121	1,096	- 25	-2.2
Water resources	Total water usage	km ³	405	419	14	3.6
	Tap water	km ³	116	119	4	3.4
	Industrial water	km ³	55	58	3	5.2
	Well water	km ³	234	241	8	3.3
Raw materials	Raw materials	tons	3,806	4,226	420	11.0
Global warming	CO ₂	ktons	25.5	27.2	2	6.8
Atmospheric pollutants	Sulfic oxide emissions	tons	2.1	2.2	0	3.1
	Nitrous oxide emissions	tons	4.3	8.3	4	94.2
	Dust	tons	0.7	1.2	0	61.2
Water pollutants	Drainage water	km ³	352	377	25	7.2
	BOD load (Biochemical oxygen demand)	tons	2.5	2.8	0	9.3
	COD load (Chemical oxygen demand)	tons	1.7	2.0	0	18.2
	SS load (Suspended solids)	tons	3.6	3.5	- 0	-2.6
Waste materials	Emmitions	tons	2,008	2,121	113	5.6
	Recycred resources	tons	1,894	2,071	177	9.3
	Final disposal	tons	23	11	- 13	-54.0

Emissions from used containers and packaging

Category	unit	Year ended March 31		Environmental conservation effect	%Change 2015/2014
		2014	2015		
Plastic containers	tons	1,592	1,599	7	0.5
Paper containers	tons	154	130	- 24	-15.6
Glass / others	tons	11	17	7	62.8
Total	tons	1,757	1,747	- 10	-0.6

Greenhouse gas emissions by site (CO₂ equivalent) [tons]

Operational site	Year ended March 31				
	2011	2012	2013	2014	2015
Osaka Office and Osaka Plant	5,476	4,967	4,510	3,265	4,345
Noto Plant	11,976	11,829	10,868	9,340	9,761
Shiga Product Supply Center	4,948	4,708	5,158	5,416	5,431
Nara Research and Development Center	5,331	4,778	4,837	4,666	4,331
Branch and sales offices and others	2,925	2,785	2,709	2,803	3,369
Total	30,656	29,067	28,082	25,491	27,237
					[t-CO ₂ /billion yen]
CO ₂ emissions per unit of sales	3.08	2.82	2.63	1.98	1.97

*Overseas subsidiaries

Operational site	Year ended March 31				
	2011	2012	2013	2014	2015
Santen Oy (Finland)	1,418	1,158	1,253	1,251	1,148

Energy usage by site (heat amount equivalent) [GJ]

Operational site	Year ended March 31				
	2011	2012	2013	2014	2015
Osaka Office and Osaka Plant	129,940	117,961	106,892	79,094	100,595
Noto Plant	234,627	232,515	222,110	204,470	212,605
Shiga Product Supply Center	116,277	110,679	121,064	127,411	129,066
Nara Research and Development Center	124,671	111,585	112,775	109,050	101,513
Branch and sales offices and others	46,994	44,346	43,193	44,768	55,237
Total	652,509	617,085	606,035	564,792	599,016
					[GJ/billion yen]
Energy usage per unit of sales	65.6	59.8	56.8	43.9	43.3

*Overseas Subsidiaries

Operational site	Year ended March 31				
	2011	2012	2013	2014	2015
Santen Oy	67,491	56,804	59,481	57,067	54,805

Waste reduction / Recycling [tons]

Operational site		Year ended March 31				
		2011	2012	2013	2014	2015
Osaka Office and Osaka Plant	Emissions	323	306	336	296	331
	Recycled resources	257	237	272	241	321
	Final disposal	3.3	3.4	3.1	11.4	2.0
	Recycle rate	79.7%	77.6%	81.0%	81.6%	97.0%
Noto Plant	Emissions	1,410	1,467	1,484	1,320	1,532
	Recycled resources	1,405	1,455	1,484	1,320	1,532
	Final disposal	0.2	0.6	0.1	0.1	0.1
	Recycle rate	99.7%	99.2%	100.0%	100.0%	100.0%
Shiga Product Supply Center	Emissions	359	380	378	262	146
	Recycled resources	359	380	378	262	146
	Final disposal	0.0	0.0	0.0	0.0	0.0
	Recycle rate	100.0%	100.0%	100.0%	100.0%	100.0%
Nara Research and Development Center	Emissions	144	149	146	130	111
	Recycled resources	18	22	8	71	71
	Final disposal	23.4	22.8	29.4	11.9	8.7
	Recycle rate	12.5%	14.4%	5.2%	54.6%	64.4%
Total	Emissions	2,236	2,303	2,344	2,008	2,121
	Recycled resources	2,040	2,094	2,142	1,894	2,071
	Final disposal	26.9	26.8	32.7	23.3	10.7
	Recycle rate	91.2%	90.9%	91.4%	94.3%	97.7%

Water resource protection [km³]

Operational site		Year ended March 31				
		2011	2012	2013	2014	2015
Osaka Office and Osaka Plant	Consumption	80	74	67	44	60
	Discharge	55	54	47	44	60
Noto Plant	Consumption	305	324	257	239	247
	Discharge	239	225	225	214	225
Shiga Product Supply Center	Consumption	70	69	82	75	71
	Discharge	58	60	65	48	52
Nara Research and Development Center	Consumption	53	49	52	46	41
	Discharge	30	31	33	46	41
Total	Consumption	508	516	459	405	419
	Discharge	382	369	370	352	377

*Overseas Subsidiary

Operational site		Year ended March 31				
		2011	2012	2013	2014	2015
Santen Oy		97	66	70	50	53

Amounts of PRTR substances handled [kg]

Substance name	Year ended March 31				
	2011	2012	2013	2014	2015
Acetonitrile	1,704	2,071	1,819	1,602	1,407
Boron and its compounds	650	705	636	632	646
Xylene	391	390	256	220	166
Formaldehyde	97	76	314	63	16
Chloroform	403	430	364	139	12
Others	624	726	521	239	171
Total	3,868	4,398	3,910	2,895	2,418

Note : The data included chemical materials used more than 1 kg in a year

	Year ended March 31				
	2011	2012	2013	2014	2015
More than 1kg of the items used for only a year	20	19	19	24	19

