



SANTEN PHARMACEUTICAL CO.,LTD.

Environmental Data Book 2012

Year Ended March 31, 2012

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Scope of reporting

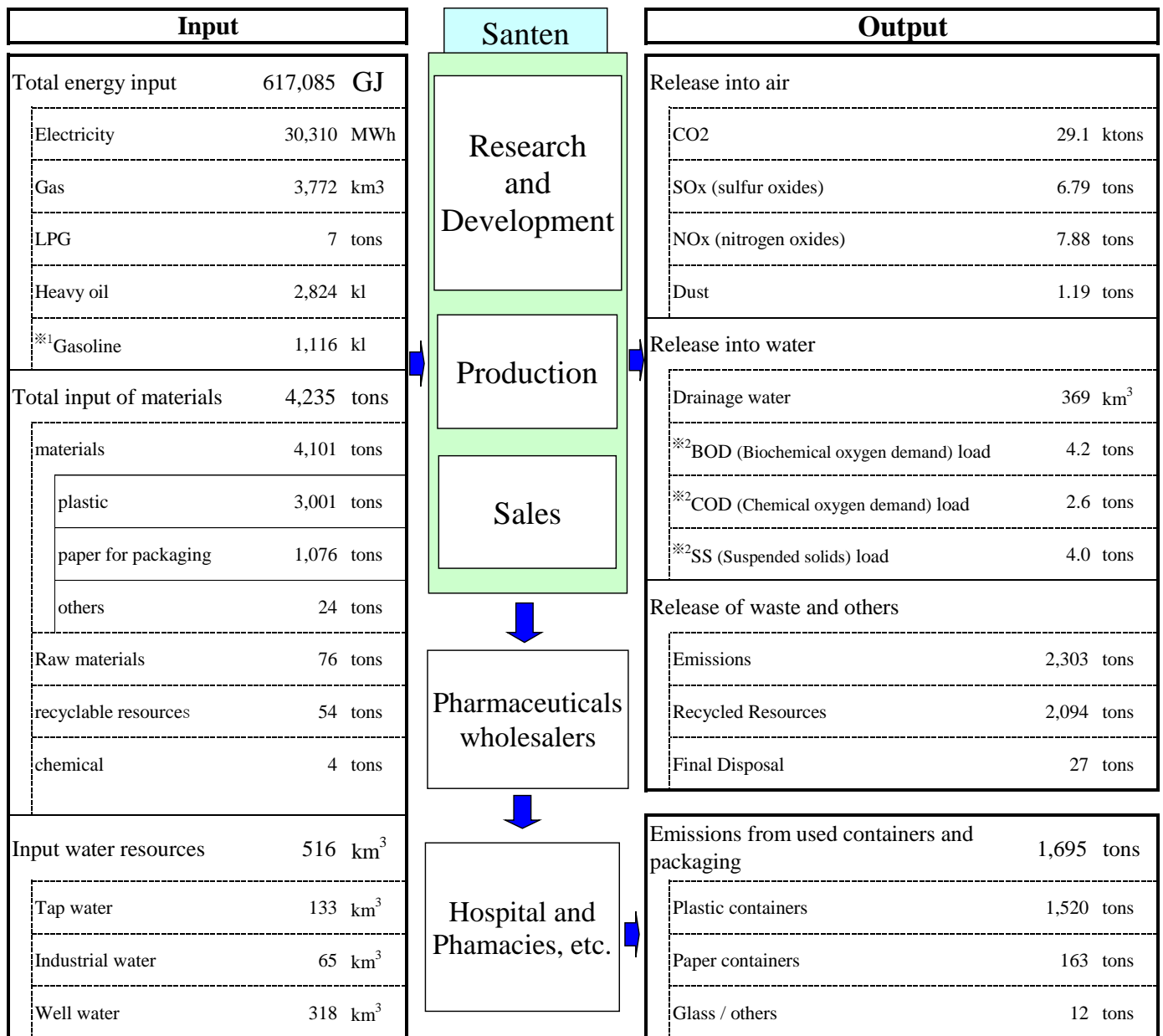
This report primarily presents data of Santen Co., Ltd.

It also includes some data of Santen's subsidiaries.

Environmental Highlights

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. Santen also has considered the mechanism that we all can gather and manage information together as well as individual management so that we can promote the reduction of environmental burdens more effectively and promptly.



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

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

Environmental Highlights

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, 2011 to March 31st, 2012

Scope: The cost and effect of Environmental preservation in Santen

Reference: MOE Environmental Accounting Guideline (2005)

unit:millions of yen

Category	2010		2011		2012	
	Investment	Expenses	Investment	Expenses	Investment	Expenses
Business area costs	82.6	308.1	10.2	259.7	147.6	314.4
Pollution prevention	0.3	137.5	3.4	103.0	17.2	126.2
Global environmental conservation	82.3	100.8	5.2	89.7	130.4	124.0
Resource circulation	—	69.8	1.6	67.0	—	64.2
Upstream/downstream costs	—	12.3	—	25.7	—	20.3
Administration costs	5.8	115.6	1.4	98.1	—	100.7
R&D costs	—	—	—	—	—	—
Social activity costs	—	1.0	—	0.9	—	0.7
Environmental damage costs	—	—	—	—	—	—
Total	88.4	437.0	11.6	384.4	147.6	436.1

- We could clearly understand the environmental cost and this was taken into account.
- 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.

Input

Category	unit	Year ended March 31					
		2008	2009	2010	2011	2012	
Energy	Total energy usage	GJ	693,696	683,805	661,762	652,509	617,085
	Electricity	MWh	31,156	31,210	32,541	31,991	30,310
	Gas	km ³	3,797	4,465	4,217	4,111	3,772
	LPG	tons	8	7	7	7	7
	Heavy oil	kℓ	4,575	3,450	2,829	2,878	2,824
	Gasoline	kℓ	1,078	1,180	1,189	1,160	1,116
Water resources	Total water usage	km ³	529	509	468	508	516
	Tap water	km ³	181	173	150	142	133
	Industrial water	km ³	60	75	70	68	65
	Well water	km ³	288	261	248	298	318
Raw materials	Raw materials	tons	4,700	4,239	3,977	4,153	4,177

Output

Category	unit	Year ended March 31					
		2008	2009	2010	2011	2012	
Global warming	CO ₂	ktons	33.9	32.6	31.0	30.7	29.1
Atmospheric pollutants	Sulfic oxide emissions	tons	5.5	4.4	2.4	1.3	6.8
	Nitrous oxide emissions	tons	12.2	8.0	6.7	10.9	7.9
	Dust	tons	1.3	1.0	0.9	4.7	1.2
Water pollutants	Drainage water	km ³	409	399	370	382	369
	BOD (Biochemical oxygen demand) load	tons	6.3	4.0	4.4	3.7	4.2
	COD (Chemical oxygen demand) load	tons	2.8	2.0	2.0	2.2	2.6
	SS (Suspended solids) load	tons	4.4	4.1	3.8	4.1	4.0
Waste materials	Emmitions	tons	2,509	2,400	2,254	2,236	2,303
	Recycred resources	tons	2,159	2,119	2,003	2,040	2,094
	Final disposal	tons	37	36	36	27	27

Emissions from used containers and packaging

Category	unit	Year ended March 31				
		2008	2009	2010	2011	2012
Plastic containers	tons	1,453	1,641	1,402	1,499	1,520
Paper containers	tons	157	122	126	156	163
Glass others	tons	115	45	108	68	12
Total	tons	1,725	1,808	1,636	1,723	1,695

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

Name of establishment	Year ended March 31				
	2008	2009	2010	2011	2012
Osaka Office and Osaka Plant	7,151	6,690	5,659	5,476	4,967
Noto Plant	12,670	11,895	11,776	11,976	11,829
Shiga Plant	6,068	5,954	5,239	4,948	4,708
Nara Research and Development Center	5,238	5,117	5,356	5,331	4,778
Branch and sales offices and others	2,764	2,968	2,987	2,925	2,785
Total	33,891	32,624	31,017	30,656	29,067

*Overseas subsidiaries

Name of establishment	Year ended March 31				
	2008	2009	2010	2011	2012
Santen Oy (Finland)	1,660	1,540	1,402	1,418	1,158
Santen Inc. (US)	292	285	257	273	—
Total	1,952	1,825	1,659	1,691	1,158

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

Name of establishment	Year ended March 31				
	2008	2009	2010	2011	2012
Osaka Office and Osaka Plant	161,337	150,034	134,427	129,940	117,961
Noto Plant	250,528	236,568	230,745	234,627	232,515
Shiga Plant	116,894	129,783	122,956	116,277	110,679
Nara Research and Development Center	119,803	119,689	125,786	124,671	111,585
Branch and sales offices and others	45,134	47,731	47,848	46,994	44,346
Total	693,696	683,805	661,762	652,509	617,085

*Overseas Subsidiaries

Name of establishment	Year ended March 31				
	2008	2009	2010	2011	2012
Santen Oy	63,391	68,093	72,898	67,491	56,804
Santen Inc.	3,278	3,085	2,860	3,214	—
Total	66,669	71,178	75,757	70,705	56,804

Waste reduction/Recycling [tons]

Name of establishment		Year ended March 31				
		2008	2009	2010	2011	2012
Osaka Office and Osaka Plant	Emissions	480	395	359	323	306
	Recycled resources	354	282	275	257	237
	Final disposal	6.4	4.8	4.2	3.3	3.4
	Recycle rate	73.9%	71.3%	76.4%	79.7%	77.6%
Noto Plant	Emissions	1,755	1,502	1,365	1,410	1,467
	Recycled resources	1,727	1,492	1,361	1,405	1,455
	Final disposal	3.0	1.7	0.1	0.2	0.6
	Recycle rate	98.4%	99.4%	99.8%	99.7%	99.2%
Shiga Plant	Emissions	117	347	370	359	380
	Recycled resources	59	324	348	359	380
	Final disposal	2.6	5.1	6.9	0.0	0.0
	Recycle rate	50.1%	93.3%	94.2%	100.0%	100.0%
Nara Research and Development Center	Emissions	158	157	160	144	149
	Recycled resources	20	21	19	18	22
	Final disposal	24.7	24.4	25.3	23.4	22.8
	Recycle rate	12.4%	13.6%	11.9%	12.5%	14.4%
Total	Emissions	2,509	2,400	2,254	2,236	2,303
	Recycled resources	2,159	2,119	2,003	2,040	2,094
	Final disposal	36.8	36.0	36.5	26.9	26.8
	Recycle rate	86.1%	88.3%	88.9%	91.2%	90.9%

Water resource protection [km³]

Name of establishment		Year ended March 31				
		2008	2009	2010	2011	2012
Osaka Office and Osaka Plant	Consumption	109	106	85	80	74
	Discharge	74	72	60	55	54
Noto Plant	Consumption	295	268	254	305	324
	Discharge	242	223	214	239	225
Shiga Plant	Consumption	63	77	72	70	69
	Discharge	55	66	62	58	60
Nara Research and Development Center	Consumption	62	58	57	53	49
	Discharge	39	37	34	30	31
Total	Consumption	529	509	468	508	516
	Discharge	409	399	370	382	369

*Overseas Subsidiary

Name of establishment		Year ended March 31				
		2008	2009	2010	2011	2012
Santen Oy		99	98	100	97	66

Amounts of PRTR substances handled [kg]

Substance name	Year ended March 31				
	2008	2009	2010	2011	2012
Acetonitrile	2,499	2,019	1,492	1,704	2,071
Chloroform	1,505	1,055	508	403	430
Boron and its compounds	1,393	774	709	650	705
Norman hexane	—	—	578	496	615
Xylene	585	600	489	391	390
Formaldehyde	127	127	450	97	76
Others	152	175	226	128	111
Total	6,261	4,750	4,452	3,868	4,398

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

	Year ended March 31				
	2008	2009	2010	2011	2012
More than 1kg of the items used for only a year	17	18	26	20	19

