



SANTEN PHARMACEUTICAL CO.,LTD.

Environmental Data Book 2011

Year Ending March 31, 2011

Corporate Social Responsibility Department

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Scope of reporting

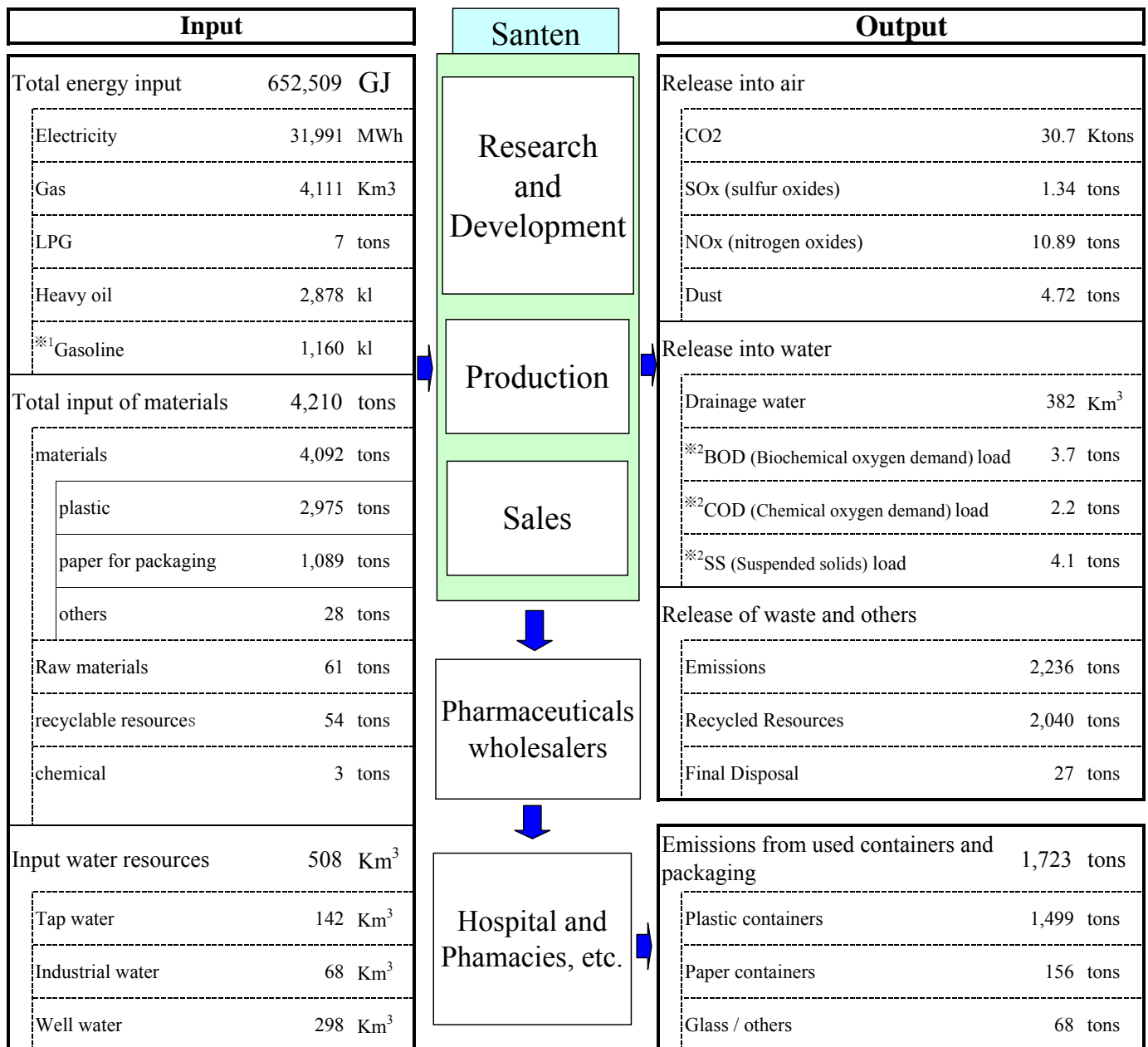
This report primarily presents data of Santen Co., Ltd.

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 the air and water, and disposal of waste and others for general business. Santen also has considered the system that all of us can manage information together as well as individually manage environmental challenges, 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 potential dangers to the environment.

- Period covered: April 1st, 2009 to March 31st, 2010
- Scope: The cost and effect of Environmental preservation in Santen
- Reference: MOE Environmental Accounting Guideline (2005)

unit:millions of yen

Category	Major activities	Investment	Expenses
Business area costs		10.2	259.7
Pollution prevention	Maintenance of waste water treatment facilities, maintenance of boilers, replacement of boiler smokestacks	3.4	103.0
Global environmental conservation	Attachment of the sensor to detect people, maintenance of co-generation facilities, inverter of cooling water pumps, changing the room layout for airflow, and an introduction of amorphous	5.2	89.7
Resource circulation	Treatment and recycling of industrial and general waste, Rebuilding the shed for waste	1.6	67.0
Upstream/downstream costs	Subcontracting of container and packaging recycling	—	25.7
Administration costs	Maintenance of ISO certification, tree-planting at offices, keeping clean around offices, participating in the environmental training course and seminar	1.4	98.1
R&D costs	—	—	—
Social activity costs	Cleaning campaign at the Tomio River in Nara, Supporting the cleaning hike and the memorial tree ceremony at Mt. Houdatsu in Ishikawa, Prefecture.	—	0.9
Environmental damage costs	—	—	—
Total		11.6	384.5

- 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 in the
- 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 ending March 31					
		2007	2008	2009	2010	2011	
Energy	Total energy usage	GJ	697,774	693,696	683,805	661,762	652,509
	Electricity	KWh	31,428	31,156	31,210	32,541	31,991
	Gas	Km ³	3,830	3,797	4,465	4,217	4,111
	LPG	tons	8	8	7	7	7,388
	Heavy oil	Kℓ	4,610	4,575	3,450	2,829	2,878
	Gasoline	Kℓ	1,035	1,078	1,180	1,189	1,160
Water resources	Total water usage	Km ³	519	529	509	468	508
	Tap water	Km ³	193	181	173	150	142
	Industrial water	Km ³	63	60	75	70	68
	Well water	Km ³	263	288	261	248	298
Raw materials	Raw materials	tons	4,946	4,700	4,239	3,977	4,153

Output

Category	unit	Year ending March 31					
		2007	2008	2009	2010	2011	
Global warming	CO ₂	Ktons	34.1	33.9	32.6	31.0	30.7
Atmospheric pollutants	Sulfic oxide emissions	tons	4.2	5.5	4.4	2.4	1.3
	Nitrous oxide emissions	tons	12.7	12.2	8.0	6.7	10.9
	Dust	tons	1.3	1.3	1.0	0.9	4.7
Water pollutants	Drainage water	Km ³	413	409	399	371	382
	BOD (Biochemical oxygen demand) load	tons	3.6	6.3	4.0	4.4	3.7
	COD (Chemical oxygen demand) load	tons	3.1	2.8	2.0	2.0	2.2
	SS (Suspended solids) load	tons	3.3	4.4	4.1	3.8	4.1
Waste materials	Emmitions	tons	2,255	2,509	2,400	2,254	2,236
	Recycred resources	tons	1,878	2,159	2,119	2,003	2,040
	Final disposal	tons	43	37	36	36	27

Emissions from used containers and packaging

Category	unit	Year ending March 31				
		2007	2008	2009	2010	2011
Plastic containers	tons	1,327	1,453	1,641	1,402	1,499
Paper containers	tons	160	157	122	126	156
Glass others	tons	116	115	45	108	68
Total	tons	1,604	1,725	1,808	1,636	1,723

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

Name of establishment	Year ending March 31				
	2007	2008	2009	2010	2011
Osaka Office and Osaka Plant	5,234	7,151	6,690	5,659	5,476
Noto Plant	12,999	12,670	11,895	11,776	11,976
Shiga Plant	7,226	6,068	5,954	5,239	4,948
Nara Research and Development Center	5,933	5,238	5,117	5,356	5,331
Branch and sales offices and others	2,662	2,764	2,968	2,987	2,925
Total	34,054	33,891	32,624	31,017	30,656

*Overseas subsidiaries

Name of establishment	Year ending March 31				
	2007	2008	2009	2010	2011
Santen Oy (Finland)	1,661	1,660	1,540	1,402	1,418
Santen Inc. (US)	318	292	285	257	273
Total	1,979	1,952	1,825	1,659	1,691

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

Name of establishment	Year ending March 31				
	2007	2008	2009	2010	2011
Osaka Office and Osaka Plant	162,686	161,337	150,034	134,427	129,940
Noto Plant	257,448	250,528	236,568	230,745	234,627
Shiga Plant	114,304	116,894	129,783	122,956	116,277
Nara Research and Development Center	119,797	119,803	119,689	125,786	124,671
Branch and sales offices and others	43,538	45,134	47,731	47,848	46,994
Total	697,774	693,696	683,805	661,762	652,509

*Overseas Subsidiaries

Name of establishment	Year ending March 31				
	2007	2008	2009	2010	2011
Santen Oy	69,616	70,020	66,000	67,900	67,491
Santen Inc.	3,614	3,278	3,085	2,860	3,214
Total	73,230	73,298	69,085	70,760	70,705

Waste reduction/Recycling [tons]

Name of establishment		Year ending March 31				
		2007	2008	2009	2010	2011
Osaka Office and Osaka Plant	Emissions	443	480	395	359	323
	Recycled resources	324	354	282	275	257
	Final disposal	7.8	6.4	4.8	4.2	3.3
	Recycle rate	73.1%	73.9%	71.3%	76.4%	79.7%
Noto Plant	Emissions	1,549	1,755	1,502	1,365	1,410
	Recycled resources	1,472	1,727	1,492	1,361	1,405
	Final disposal	6.1	3.0	1.7	0.1	0.2
	Recycle rate	95.0%	98.4%	99.4%	99.8%	99.7%
Shiga Plant	Emissions	104	117	347	370	359
	Recycled resources	64	59	324	348	359
	Final disposal	3.8	2.6	5.1	6.9	0.0
	Recycle rate	61.7%	50.1%	93.3%	94.2%	100.0%
Nara Research and Development Center	Emissions	159	158	157	160	144
	Recycled resources	17	20	21	19	18
	Final disposal	25.0	24.7	24.4	25.3	23.4
	Recycle rate	11.0%	12.4%	13.6%	11.9%	12.5%
Total	Emissions	2,255	2,509	2,400	2,254	2,236
	Recycled resources	1,878	2,159	2,119	2,003	2,040
	Final disposal	42.7	36.8	36.0	36.5	26.9
	Recycle rate	83.3%	86.1%	88.3%	88.9%	91.2%

Water resource protection [Km³]

Name of establishment		Year ending March 31				
		2007	2008	2009	2010	2011
Osaka Office and Osaka Plant	Consumption	121	109	106	85	80
	Discharge	84	74	72	60	55
Noto Plant	Consumption	270	295	268	254	305
	Discharge	231	242	223	214	239
Shiga Plant	Consumption	65	63	77	72	70
	Discharge	57	55	66	62	58
Nara Research and Development Center	Consumption	62	62	58	57	53
	Discharge	41	39	37	34	30
Total	Consumption	519	529	509	468	508
	Discharge	413	409	399	371	382

*Overseas Subsidiary

Name of establishment		Year ending March 31				
		2007	2008	2009	2010	2011
Santen Oy		95	99	98	100	97

Amounts of PRTR substances handled [kg]

Substance name	Year ending March 31				
	2007	2008	2009	2010	2011
Acetonitrile	2,226	2,499	2,019	1,492	1,704
Chloroform	1,466	1,505	1,055	508	650
Boron and its compounds	591	1,393	774	709	496
Norman hexane	-	-	-	578	403
Xylene	510	585	600	489	391
Formaldehyde	117	127	127	450	97
Others	323	152	175	156	128
Total	5,233	6,261	4,750	4,382	3,868

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

	Year ending March 31				
	2007	2008	2009	2010	2011
More than 1kg of the items used for only a year	17	17	18	26	20

