



SANTEN PHARMACEUTICAL CO., LTD.

# Environmental Data Book 2010

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Year Ending March 31, 2010

Corporate Social Responsibility Group

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## Scope of reporting

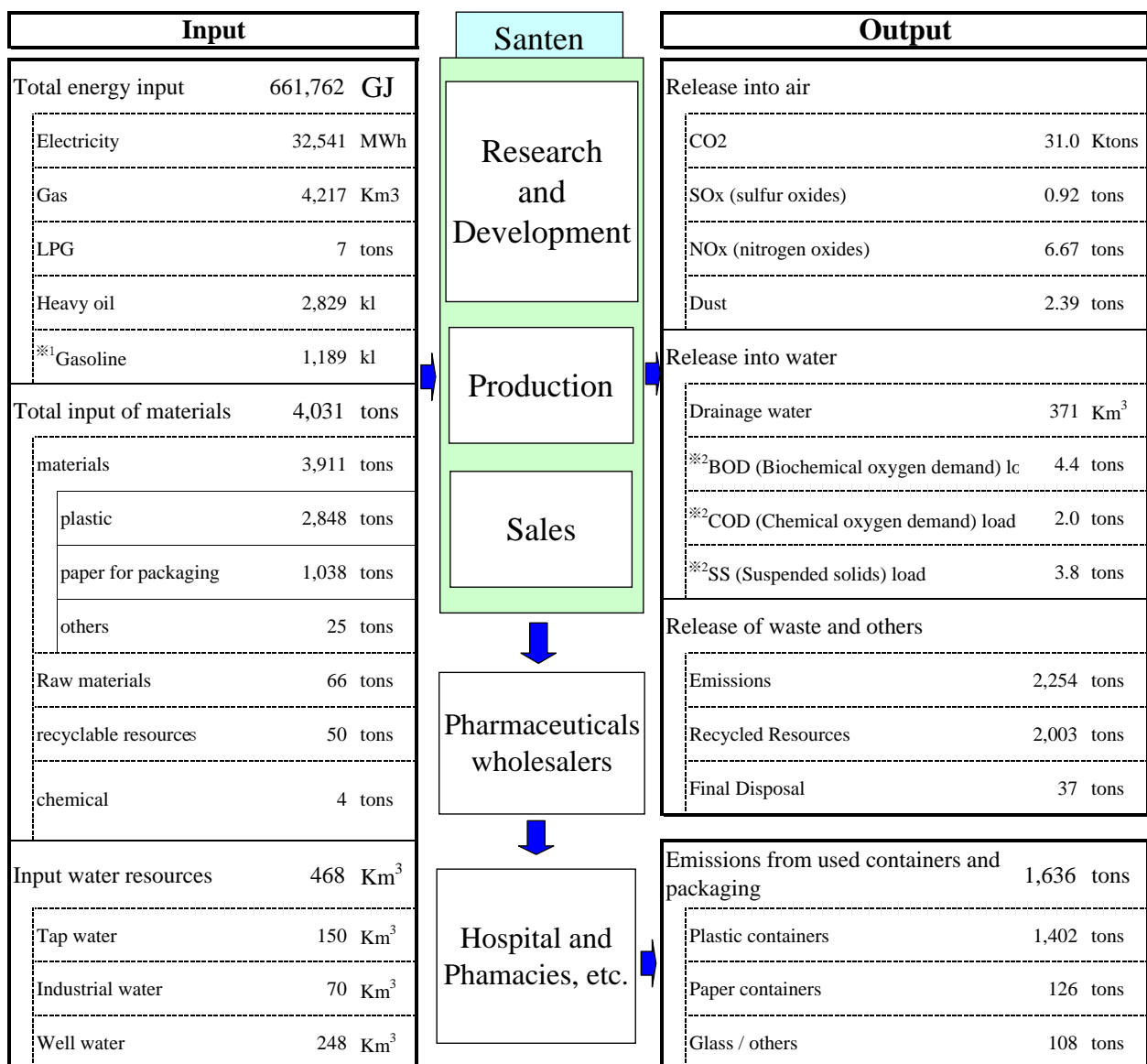
This report primarily presents data of Santen Co., Ltd.

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, 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		82.6	308.1
Pollution prevention	Maintenance of waste water treatment facilities, maintenance of boilers, maintenance of individual sewage treatment facilities	0.3	137.5
Global environmental conservation	Replacement of the high efficient boilers, maintenance of cogeneration facilities, Heat insulating and coating outward walls of a building, changing the lights to LED, changing the room layout for airflow	82.3	100.8
Resource circulation	Proper treatment and recycling of industrial and general waste, recycling confidential documents		69.8
Upstream/downstream costs	Subcontracting of container and packaging recycling	—	12.3
Administration costs	Maintenance of ISO certification, tree-planting at offices, beautifying of offices, participating the environmental training course and seminar	5.8	115.6
R&D costs	—	—	—
Social activity costs	Cleaning campaign at the Tomio River in Nara, Supporting the Euryale Ferox Project in Hikone Castle, Supporting the Cleaning hike and the memorial tree at Houdatsu mountain in Ishikawa	—	1.0
Environmental damage costs	—	—	—
Total		88.4	437.0

- 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.
- 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					
		2006	2007	2008	2009	2010	
Energy	Total energy usage	GJ	724,493	697,774	693,696	683,805	661,762
	Electricity	KWh	32,433	31,428	31,156	31,210	32,541
	Gas	Km <sup>3</sup>	4,066	3,830	3,797	4,465	4,217
	LPG	tons	8	8	8	7	7
	Heavy oil	Kℓ	4,761	4,610	4,575	3,450	2,829
	Gasoline	Kℓ	1,043	1,035	1,078	1,180	1,189
Water resources	Total water usage	Km <sup>3</sup>	592	519	529	509	468
	Tap water	Km <sup>3</sup>	191	193	181	173	150
	Industrial water	Km <sup>3</sup>	69	63	60	75	70
	Well water	Km <sup>3</sup>	332	263	288	261	248
Raw materials	Raw materials	tons	5,324	4,946	4,700	4,239	3,977

## Output

Category	unit	Year ending March 31					
		2006	2007	2008	2009	2010	
Global warming	CO <sub>2</sub>	Ktons	35.4	34.1	33.9	32.6	31.0
Atmospheric pollutants	Sulfic oxide emissions	tons	6.3	4.2	5.5	4.4	2.4
	Nitrous oxide emissions	tons	17.1	12.7	12.2	8.0	6.7
	Dust	tons	1.5	1.3	1.3	1.0	0.9
Water pollutants	Drainage water	Km <sup>3</sup>	485	413	409	399	371
	BOD (Biochemical oxygen demand) load	tons	3.8	3.6	6.3	4.0	4.4
	COD (Chemical oxygen demand) load	tons	2.8	3.1	2.8	2.0	2.0
	SS (Suspended solids) load	tons	3.5	3.3	4.4	4.1	3.8
Waste materials	Emmissions	tons	2,542	2,255	2,509	2,400	2,254
	Recycred resources	tons	2,120	1,878	2,159	2,119	2,003
	Final disposal	tons	41	43	37	36	36

## Emissions from used containers and packaging

Category	unit	Year ending March 31				
		2006	2007	2008	2009	2010
Plastic containers	tons	1,334	1,327	1,453	1,641	1,402
Paper containers	tons	187	160	157	122	126
Glass others	tons	115	116	115	45	108
Total	tons	1,636	1,604	1,725	1,808	1,636

## Greenhouse gas emissions by establishment (CO<sub>2</sub> equivalent) [tons]

Name of establishment	Year ending March 31				
	2006	2007	2008	2009	2010
Osaka Office and Osaka Plant	5,444	5,234	7,151	6,690	5,659
Noto Plant	13,472	12,999	12,670	11,895	11,776
Shiga Plant	5,992	7,226	6,068	5,954	5,239
Nara Research and Development Center	7,642	5,933	5,238	5,117	5,356
Branch and sales offices and others	2,816	2,662	2,764	2,968	2,987
<b>Total</b>	<b>35,366</b>	<b>34,054</b>	<b>33,891</b>	<b>32,624</b>	<b>31,017</b>

### \*Overseas subsidiaries

Name of establishment	Year ending March 31				
	2006	2007	2008	2009	2010
Santen Oy (Finland)	1,600	1,661	1,660	1,540	1,402
Santen Inc. (US)	373	318	292	285	257
<b>Total</b>	<b>1,973</b>	<b>1,979</b>	<b>1,952</b>	<b>1,825</b>	<b>1,659</b>

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

Name of establishment	Year ending March 31				
	2006	2007	2008	2009	2010
Osaka Office and Osaka Plant	172,380	162,686	161,337	150,034	134,427
Noto Plant	264,634	257,448	250,528	236,568	230,745
Shiga Plant	116,680	114,304	116,894	129,783	122,956
Nara Research and Development Center	123,274	119,797	119,803	119,689	125,786
Branch and sales offices and others	47,526	43,538	45,134	47,731	47,848
<b>Total</b>	<b>724,493</b>	<b>697,774</b>	<b>693,696</b>	<b>683,805</b>	<b>661,762</b>

### \*Overseas Subsidiaries

Name of establishment	Year ending March 31				
	2006	2007	2008	2009	2010
Santen Oy	69,761	69,616	70,020	66,000	67,900
Santen Inc.	4,343	3,614	3,278	3,085	2,860
<b>Total</b>	<b>74,104</b>	<b>73,230</b>	<b>73,298</b>	<b>69,085</b>	<b>70,760</b>

## Waste reduction/Recycling [tons]

Name of establishment		Year ending March 31				
		2006	2007	2008	2009	2010
Osaka Office and Osaka Plant	Emissions	471	443	480	395	359
	Recycled resources	354	324	354	282	275
	Final disposal	6.5	7.8	6.4	4.8	4.2
	Recycle rate	75.2%	73.1%	73.9%	71.3%	76.4%
Noto Plant	Emissions	1,677	1,549	1,755	1,502	1,365
	Recycled resources	1,557	1,472	1,727	1,492	1,361
	Final disposal	9.1	6.1	3.0	1.7	0.1
	Recycle rate	92.8%	95.0%	98.4%	99.4%	99.8%
Shiga Plant	Emissions	248	104	117	347	370
	Recycled resources	191	64	59	324	348
	Final disposal	3.7	3.8	2.6	5.1	6.9
	Recycle rate	77.0%	61.7%	50.1%	93.3%	94.2%
Nara Research and Development Center	Emissions	145	159	158	157	160
	Recycled resources	17	17	20	21	19
	Final disposal	22.2	25.0	24.7	24.4	25.3
	Recycle rate	11.8%	11.0%	12.4%	13.6%	11.9%
Total	Emissions	2,542	2,255	2,509	2,400	2,254
	Recycled resources	2,120	1,878	2,159	2,119	2,003
	Final disposal	41.4	42.7	36.8	36.0	36.5
	Recycle rate	83.4%	83.3%	86.1%	88.3%	88.9%

## Water resource protection [Km<sup>3</sup>]

Name of establishment		Year ending March 31				
		2006	2007	2008	2009	2010
Osaka Office and Osaka Plant	Consumption	124	121	109	106	85
	Discharge	85	84	74	72	60
Noto Plant	Consumption	340	270	295	268	254
	Discharge	283	231	242	223	214
Shiga Plant	Consumption	71	65	63	77	72
	Discharge	60	57	55	66	62
Nara Research and Development Center	Consumption	57	62	62	58	57
	Discharge	57	41	39	37	34
Total	Consumption	592	519	529	509	468
	Discharge	485	413	409	399	371

### \*Overseas Subsidiary

Name of establishment		Year ending March 31				
		2006	2007	2008	2009	2010
Santen Oy		87	95	99	98	98

## Amounts of PRTR substances handled [kg]

Substance name	Year ending March 31				
	2006	2007	2008	2009	2010
Acetonitrile	1,814	2,226	2,499	2,019	1,492
Chloroform	713	1,466	1,505	1,055	508
Boron and its compounds	731	591	1,393	774	709
Xylene	495	510	585	600	489
Formaldehyde	127	117	127	127	450
Others	211	323	152	175	734
Total	4,091	5,233	6,261	4,750	4,382

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

	Year ending March 31				
	2006	2007	2008	2009	2010
More than 1kg of the items used for only a year	19	17	17	18	26

