

**Junsei Chemical, Co.,Ltd.**

# **Environmental Report**

**2008**

(Apr 2007~Mar 2008)



## Junsei Chemical, Co.,Ltd. Overview

### Business contents

Manufacturing, wholesale and sale of chemical reagents, manufacturing of chemical agents, distribution of other companies' reagents and chemical agents.

### Business locations

We have the Headquarters and Administration and Accounting Division in Nihonbashi, Chuo-ku, Tokyo.

Sales bases are located and sales activities are conducted in Sapporo-City in Hokkaido, Sendai-City in Miyagi Pref., Koshigaya-City in Saitama Pref., Shimotsuma-City in Ibaraki Pref., Sodegaura-City in Chiba Pref., Yamato-City in Kanagawa Pref., Toyama-City in Toyama Pref., and Osaka-City in Osaka Pref..

There is a manufacturing base for massproduction of chemical agents in Okuma-cho, Fukushima Pref. and manufacturing activity is conducted there. It is an industrial complex facing the Pacific Ocean.

There are offices such as manufacturing, logistics, quality assurance divisions, development research institute, purchase division, sales headquarters, etc. and we are conducting the manufacturing of chemical agents and small-sized manufacturing of reagents and sales activity. The location is facing a residential area.

There is a liquid reagent manufacturing base in Shimotsuma-City, Ibaraki Pref. and we are conducting manufacturing activity. It is an agricultural community facing a wooded area.

### Number of employees

2002	2003	2004	2005	2007	2008
183	172	180	186	198	204

### Sales destinations

Pharmaceutical companies, electronic material companies, chemical industry companies, food companies, public research institutes and college research departments, etc.

## Policy of consideration for environment concerning business activities

### Junsei Chemical, Co.,Ltd.'s environmental report preparation background

We are conducting manufacturing and distribution of chemical agents which are thought to have a large load on the environment, but chemical agents and reagents are indispensable for development of science because chemical agents are used for medicine, etc. and reagents are used for researches and analyses.

Generally, when converting hazardous chemical substances with environmental load into useful chemical substances, a lot of chemical wastes are generated. We are considering it is our responsibility to care about the environment by managing the safety control of raw materials, products and wastes which may lead to a serious environmental pollution with a wrong conduct.

Especially, the issue of global warming caused by carbon dioxide has not been other world's matter, but has become the general issue. It has been 3 years since we created our first environmental report the year before last year.

## Environmental policy

### Constitution of environmental policy

We have instituted our environmental policy on April 1, 2007 as follows.

### Environmental policy

#### 1. Basic concept

We, living in the environment, will not be able to live for a long time if we take the blessings of the environment without caring it. Our company will be aware that we are burdening the environment with manufacturing of chemical products, and will take care of the environment by continuously improving our activities to become as small burden as possible for the environment.

#### 2. Basic policy

(1) We shall always investigate the environmental impact of our corporate activities, products and wastes, and review and improve in order to make the environmental load as small as possible.

(2) We shall observe all the environment laws concerning the corporate activities. We shall confirm and report to the management executive the observance status of laws, ministerial ordinances, etc. and ordinances of local governments.

(3) We shall observe the agreed matters with our clients concerning the environment, and especially produce the products which do not include environmental control substance, upon the clients' request.

(4) We shall set an environmental goal and formulate the implementation plan. The management executive shall confirm the implementation status periodically.

(5) We shall document our environmental activities and observe the procedure. We shall also provide education for improvement of awareness toward environment protection to those who work for our company.

(6) We shall publish our environmental policy and annual environmental report inside and outside the company.

## Our effort for the environment

### History

We have manufactured and distributed chemical reagents since the business initiation and have handled chemical agents for approximately 60 years.

For Saitama Plant, because it has been over 40 years since the construction, and it has become impossible to correspond to the business expansion due to its lack of space, we have been conducting renewal of facilities and reconstruction sequentially for approximately 10 years. Furthermore, because of its location adjacent to the residential area, we have been shifting from use and production of hazardous and environment-loading chemicals to the ones of less environment load. We have also been making effort as the whole company for the business expansion by constructing Okuma Plant and Tsukuba Plant including the environmental infrastructure adjustment.

In 2001, we obtained ISO14001 certification, and initially executed ecological actions such as using both sides of paper, shifting to the use of electronic media and reduction of electricity use. Due to the expansion

of the company size, we could not achieve a large scale of reduction, but such actions could lead to increase control and improvement of the employees' awareness towards the environment. The importance of compliance has been socially suggested since around 2004, so we have been continuously enhancing the activities of compliance of chemical plants.

Our recent effort for the environment

(1) Green procurement

We use paper mostly for catalogues of chemical reagent products. For the edition of 2003, we used 70% recycled paper. We changed to 100% recycled paper for the edition of 2005, and conducted green procurement by purchasing 23.2t of recycled paper.

Around 2003, we accomplished to change the printing ink for catalogue and label into soy oil ink which generates no hazardous substance after being burnt.

We added green procurement to quality environment goal, and positively purchased green mark products including office supplies as the whole company since 2006.

(2) Effort for clients' environment related requests

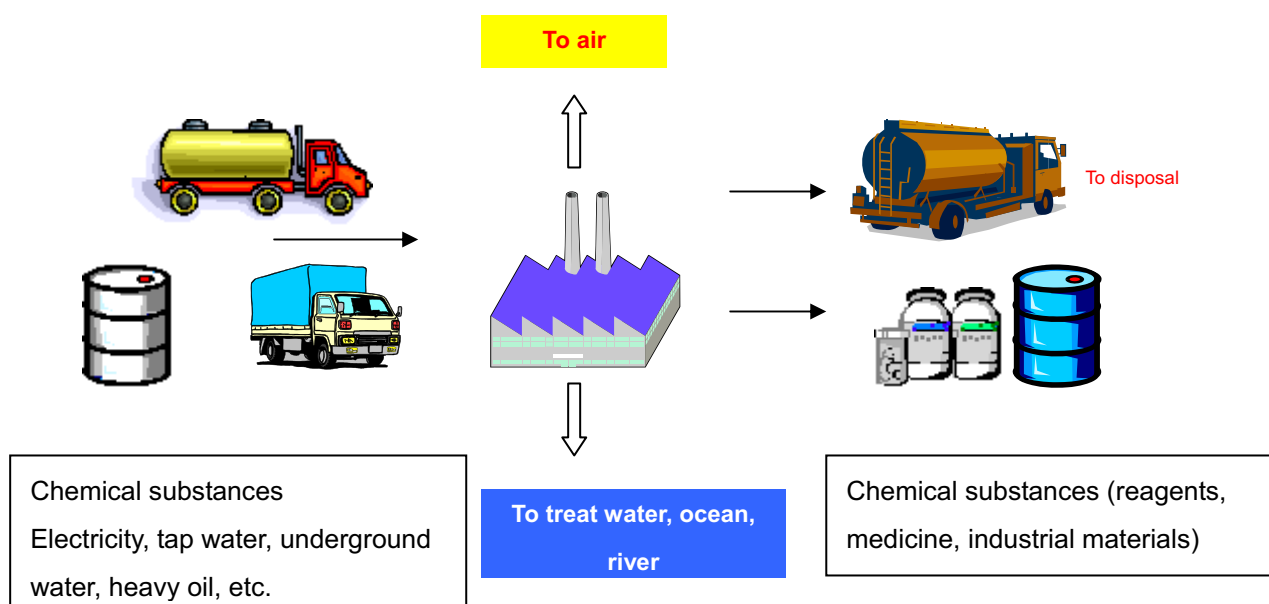
In 2002, we obtained Sony Green Partner certification and renewed it in 2005. We are making effort to restrain environment pollution.

After the enforcement of RoHS (Restriction of Hazardous Substances Directive) in July 2006, we are continuing to provide individual users with the certificates of non-inclusion of environment control substances in chemical substances, containers and packaging materials.

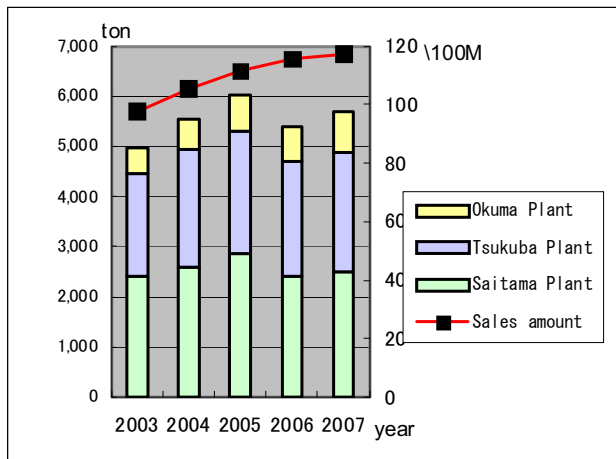
(3) Storage management of PCB

We are storing and managing 80kg of PCB at Saitama Plant. In compliance with the Law Concerning Special Measures against PCB Waste, we completed the application of PCB disposal by 2005, and are storing and managing it until the disposal.

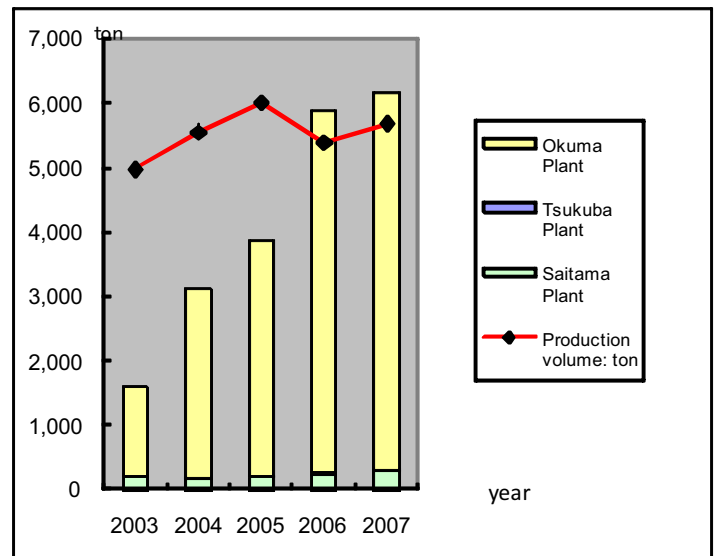
Shift concept of chemical substances



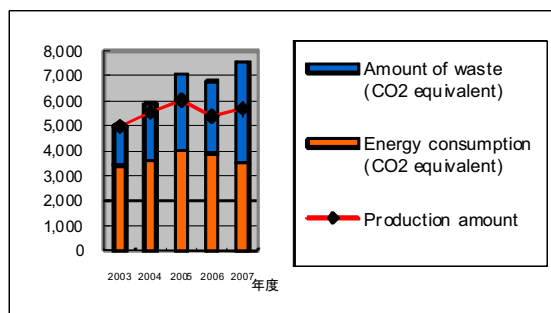
### Production volume and sales amount



### Amount of waste and production volume



### Emission of carbon dioxide



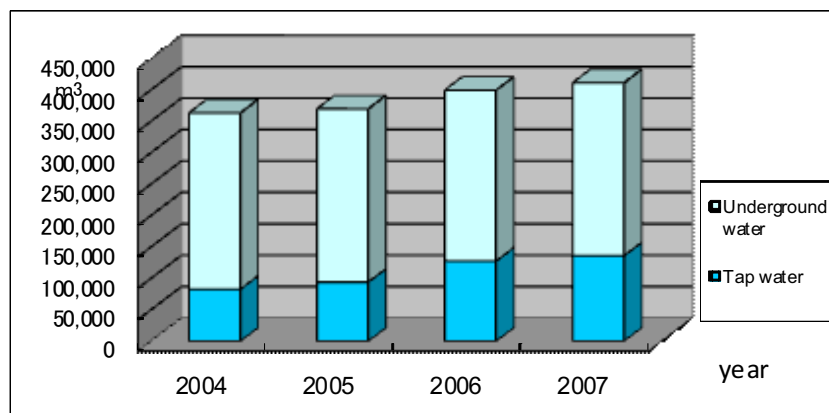
### Energy usage (crude oil equivalent)

Crude oil equivalent: Whole company total

2004	2005	2006	2007
1760kl	1960kl	2060kl	2386kl

We calculated the numbers of 2005, 2006 and 2007 by using the emission factor announced by the electricity company.  
It does not include CO2 amount from paper wastes.

### Water usage



Note: Underground water in 2004 includes estimated values.

## Emission and control by PRTR

2006

Ordinance No.	Chemical substance	Emission to air	Discharge to public water district	Discharge to soil	Displacement amount
1	Zinc water-soluble compound	0	0	0	0
16	2-aminoethanol	0	0	0	0
40	Ethylbenzene	0	0	0	0
43	Ethylene glycol	0	0.1	0	0
58	1-octanol	0	0	0	0
59	p-octyl phenol	0	0	0	0
63	Xylene	921	0	0	440,710
68	Chrome and trivalent chromium compound	0	0	0	0
93	Chlorobenzene	1,500	0	0	7,300
95	Chloroform	1,110	0	0	1,300
100	Cobalt and its compound	0	0	0	1,600
101	Ethylene glycol monoethyl ether acetate	0	0	0	0
112	Carbon tetrachloride	0	0	0	0
113	1,4-dioxane	5.3	0	0	6,520
114	Cyclohexylamine	0	0	0	45

Ordinance No.	Chemical substance	Emission to air	Discharge to public water district	Discharge to soil	Displacement amount
116	1,2-dichloroethane	1600	0	0	26000
145	Dichloromethane	1320	0	0	4100
172	N,N-dimethylformamide	0	0	0	9000
182	Thiophenol	0	0	0	150
207	Cupric water-soluble salt	0	0	0	0
227	Toluene	1446	0.9	0	48710
230	Lead and its compound	0	0	0	0
232	Nickel compound	0	0	0	2.7
259	Pyridine	0	0	0	0
270	Dibutyl phthalate	0	0	0	0
283	Hydrogen fluoride and its water-soluble salt	0	0	0	10
297	Benzyl chloride	0	0	0	0
299	Benzene	0	0	0	0
311	Manganese and its compound	0	0	0	0
313	Maleic anhydride	0	0	0	0

2007

Ordinance No.	Chemical substance	Emission to air	Discharge to public water district	Discharge to soil	Displacement amount
1	Zinc water-soluble compound	0	0	0	0
13	2,2'-azobisisobutyronitrile	0	0	0	0
16	2-aminoethanol	0	0	0	0
40	Ethylbenzene	0	0	0	0
43	Ethylene glycol	0	0	0	1,00
58	1-octanol	0	0	0	0
59	p-octyl phenol	0	0	0	0
63	Xylene	2,000.7	0	0	480,680
69	Hexavalent chromium compound	0	0	0	0
93	Chlorobenzene	0	0	0	0
95	Chloroform	750	0	0	1800
100	Cobalt and its compound	0	0	0	0
101	Ethylene glycol monoethyl ether acetate	0	0	0	0
113	1,4-dioxane	5.1	0	0	280
114	Cyclohexylamine	0	0	0	0
116	1,2-dichloroethane	2,000	0	0	63,000

Ordinance No.	Chemical substance	Emission to air	Discharge to public water district	Discharge to soil	Displacement amount
145	Dichloromethane	752	0	0	6,900
172	N,N-dimethylformamide	0	0	0	12,000
182	Thiophenol	0	0	0	190
207	Cupric water-soluble salt	0	0	0	0
211	Trichloroethylene	0	0	0	0
227	Toluene	1,701.3	0	0	97,480
230	Lead and its compound	0	0	0	0
232	Nickel compound	0	0	0	0
259	Pyridine	0	0	0	0
270	Dibutyl phthalate	0	0	0	0
272	Bis (2-ethylhexyl) phthalate	0	0	0	0
283	Hydrogen fluoride and its water-soluble salt	0	0	0	0
297	Benzyl chloride	0	0	0	0
299	Benzene	0	0	0	0
311	Manganese and its compound	0	0	0	0
313	Maleic anhydride	0	0	0	0

Remarks: PRTR substances of handling of 500kg. Displacement amounts are appropriately managed and disposed of as wastes.

## Environmental nonconformity and environmental performance 2007

### Summary

There were no complaints concerning the environment in 2007, but there was some environmental nonconformity regarding laws and regulations.

There is not so much increase in the energy usage compared to the production amount, but general waste amount and water usage increased, which prevented us from reducing environmental load.

Manufacturing of intermediate under Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

We conducted the operation at Okuma Plant which was not partially notified and we notified the Ministry of the Environment, etc. of it. They gave us instruction and we have constructed a test and education system to prevent it from happening again.

### Water discharge at Saitama Plant

Total volume control: excess of phosphorus inclusion amount; 1 time in a year, slightly exceeded the control amount.

Total volume control: excess of COD inclusion amount; 3 times in a year, exceeded the control amount.

Water discharge standard: excess of BOD value; 4 times in a year, exceeded the control amount.

There was an incident amount the above, where methanol flowed out by malpractice, entered the activated sludge tank and reduced the disposal amount.

We will continuously manage the permeation membrane of the activated sludge tank.

### Leakage at Saitama Plant

During the circulation of 1mol/L of sodium hydroxide solution, the pipe was disconnected and about 1m<sup>3</sup> leaked. However, there was not an impact on the environment because it was processed in the neutralization tank and then processed with the activated sludge.

### Water vapor generation from the scrubber at Okuma Plant

It is due to the lack of capacity of exhaust treatment unit. We took a measure by increasing gas absorbing liquid and reducing gas flow.

Prepared on: November 14, 2008