

# SEKISUI CHEMICAL CO., LTD.

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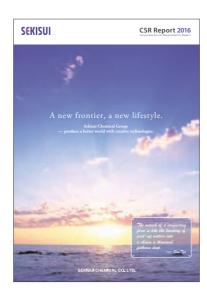
CSR Planning, CSR Promotion Department 2-3-17 Toranomon, Minato-ku, Tokyo 105-8450, Japan (Toranomon 2-chome Tower) E-mail: csr@sekisui.com



CSR Report 2016 (including the Data Book (PDF)) has been reviewed for assurance by an independent third party and as a result has been granted the sustainability report review and registration logo. This demonstrates that this report satisfies the necessary criteria established by the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS; http://www.j-sus.org/) for the use of this logo, intended to assure the reliability of sustainability information.

## **Corporate Social Responsibility Report**

# CSR Report 2016 Data Book



### Scope of Independent Practitioner's Assurance

The environmental and social information contained in the CSR Report 2016 (the Report version and PDF Data Book) is subject to independent practitioner's assurance for the appropriateness of calculation methods and the accuracy of calculation results. Information that falls within the scope of independent practitioner's assurance is identified by a mark.The Independent Practitioner's Assurance Report is included in the CSR Report.



### Disclaimer

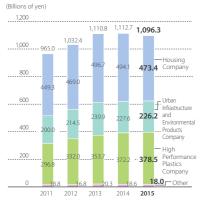
Readers are requested to note the following: The information in this report includes not only past and present facts concerning Sekisui Chemical Co., Ltd, and its affiliates but also future forecasts based on current plans and projections and management plans and management policies as of the time of publication. Changes in various factors could cause the results of business activities in the future and other circumstances to differ from these forecasts. Also, since the figures in the tables and graphs contained in this report have been adjusted through rounding off and other means, in some cases total figures may not be equal to the sums of their parts. In addition, for some items data for past fiscal years has been revised in line with expansion in the scope of summation, revision of calculation methods, and changes to environmental load coefficients.

## **SEKISUI CHEMICAL CO., LTD.**

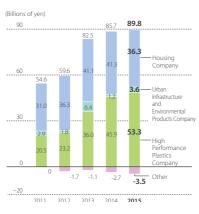
## **Management Benchmarks (Consolidated)**

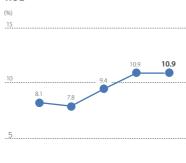
\* Fiscal 2012: Performance for overseas subsidiaries is for the 15-month period January 2012 through March 2013 (in connection with standardization of the fiscal years of consolidated subsidiaries to end in March beginning with fiscal 2012).

### Sales (by Each Division Company)



## Operating Income (by Each Division Company)

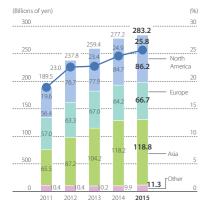




Interest-Bearing Debt and

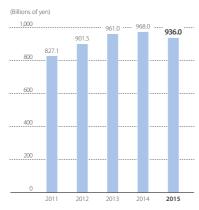
Interest-Bearing Debt as a

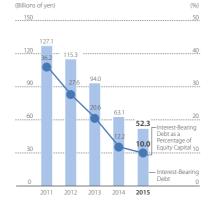
Percentage of Equity Capital



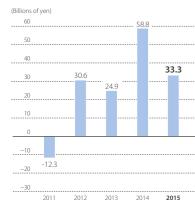
Overseas Sales and Sales Ratio



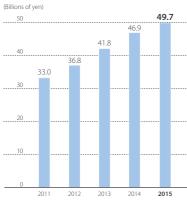


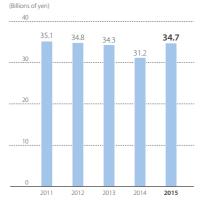


Free Cash Flows



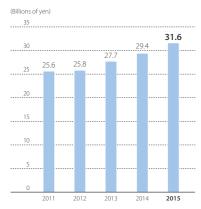
**Capital Expenditures** 



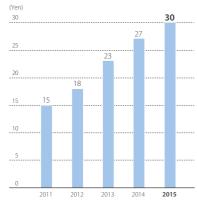


**Depreciation and Amortization** 

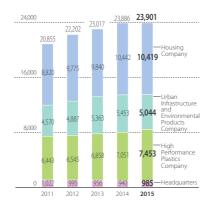
### **R&D Costs**



**Annual Dividend per Share** 



**Number of Employees** 



## **Environment-Related Data Sources**

### **Coverage of the Environmental Performance Data**

### **Japan**

### **Housing Company**

**R&D** institutes One company and one business site

Sekisui Chemical Co., Ltd. Tsukuba R&D Site

Production plants 11 companies and 10 business sites

Hokkaido Sekisui Heim Industry Co., Ltd. Tohoku Sekisui Heim Industry Co., Ltd. Chushikoku Sekisui Heim Industry Co., Ltd. Kyusyu Sekisui Heim Industry Co., Ltd. Sekisui Board Co., Ltd., etc.

Sales and construction companies

28 companies and 108 business sites

Sekisui Heim sales companies Construction and service companies

40 companies and 119 business sites in total

### **Urban Infrastructure and Environmental Products Company**

### **R&D** institutes One company and one business site

Sekisui Chemical Co., Ltd. Kyoto Research & Development Laboratories

### Production plants 18 companies and nine business sites

Sekisui Chemical Co., Ltd. Shiga-Ritto Plant / Sekisui Chemical Co., Ltd. Gunma Plant Sekisui Chemical Hokkaido Co., Ltd. / Toto Sekisui Co., Ltd. Ota Plant Nara Sekisui Co., Ltd. / Shikoku Sekisui Co., Ltd. / Kyushu Sekisui Industry Co., Ltd. Hanyu Sekisui Co., Ltd. / Yamanashi Sekisui Co., Ltd., etc.

### Sales One company and 13 business sites

Sekisui Chemical Co., Ltd. Higashinihon Branch, Nishinihon Branch, etc.

### 18 companies and 23 business sites in total

### **High Performance Plastics Company**

### R&D institutes Two companies and two business sites

Sekisui Chemical Co., Ltd. Minase Site

Sekisui Medical Co., Ltd. Drug Development Solutions Center

### Production plants 11 companies and 14 business sites

Sekisui Chemical Co., Ltd. Musashi Plant Sekisui Chemical Co., Ltd. Shiga-Minakuchi Plant Sekisui Chemical Co., Ltd. Taga Plant Sekisui Techno Molding Co., Ltd. / Sekisui Film Co., Ltd. Sekisui Medical Co., Ltd., etc. / Sekisui Fuller Company, Ltd. Sekisui Nano Coat Technology Co., Ltd., etc.

### 11 companies and 16 business sites in total

### Headquarters

### **R&D** institutes One company and one business site

Sekisui Chemical Co., Ltd. Development Center

### Production plants and Seven companies and headquarters 10 business sites

Sekisui Seikei, Ltd. Hinomaru Co., Ltd.

Tokuyama Sekisui Industry Co., Ltd.,

Sekisui Chemical Co., Ltd. Osaka headquarters and Tokyo headquarters, etc.

Seven companies and 11 business sites in total

### Total: 73 companies and 169 business sites

Note: The total number of companies and business sites do not match, since some companies have two or more business sites, and some business sites are shared by two or more companies.

### **Overseas**

# Urban Infrastructure and Environmental Products Company

Sekisui Polymer Innovations, LLC. Bloomsburg Plant Sekisui Polymer Innovations, LLC. Holland Plant Sekisui Industrial Piping Co., Ltd. Sekisui (Qingdao) Plastic Co., Ltd.

Sekisui (Wuxi) Plastics Technology Co., Ltd.

Sekisui Eslon B.V.

Sekisui Rib Loc Australia Pty. Ltd.

## Seven business sites in total

### **High Performance Plastics Company**

Sekisui S-Lec America, LLC. Sekisui S-Lec Mexico S.A. de C.V. Sekisui S-Lec B.V. Film Plant Sekisui S-Lec B.V. Resin Plant Sekisui S-Lec (Thailand) Co., Ltd.

Sekisui S-LEC (Suzhou) Co., Ltd. Sekisui Specialty Chemicals America, LLC. Pasadena Plant

Sekisui Specialty Chemicals America, LLC. Calvert City Plant

Sekisui Specialty Chemicals Europe S.L. Sekisui Voltek, LLC. Lawrence Plant

Sekisui Voltek, LLC. Coldwater Plant

Sekisui-Alveo B.V.

Sekisui Alveo Ltd.

Sekisui Alveo BS GmbH

Thai Sekisui Foam Co., Ltd.

Sekisui Pilon Pty. Ltd.

YoungBo Chemical Co., Ltd.

YoungBo HPP (Langfang) Co., Ltd.

Sekisui High Performance Packaging (Langfang) Co., Ltd.

Sekisui Medical Technology (China) Ltd.

Sekisui Xenotech, LLC.

Sekisui Diagnostics, LLC. Stamford

Sekisui Diagnostics, LLC. San Diego

Sekisui Diagnostics (UK) Ltd.

Sekisui Diagnostics P.E.I. Inc.

Sekisui Virotech GmbH

Sekisui DLJM Molding Private Ltd. Greater Noida Plant

Sekisui DLJM Molding Private Ltd. Tapukara Plant

### 28 business sites in total

## Results of the Medium-Term Environmental Plan

Targets and Results of Initiatives under Environmental Medium-Term SEKISUI Environmental Sustainability Plan Take-Off (FY 2014-2016)

	cts und ne.			- Internative Calain 10				jects		-	al Sustainability Plan Take-Off (FY 2014-2016)
Major Target			Efforts		Production sites in Japan	Laboratories	Domestic offices	Overseas production sites	Overseas offices	Other	Indicators
	Expand and create	Increase sales of	Environment-Co	ntributing Products	0		0	0	0		Environment-Contributing Product sales ratio (consolidated)
	Environment- Contributing Products	Create Environm	nent-Contributing	g Products	0	0		0			Number of new Environment-Contributing Product registrations
			Reduce greenhouse gas emissions	Emissions reduction	0			0			GHG emissions
					0			0			Energy consumption per unit of output
		Greenhouse gases, energy	Energy	Poduce energy use		0					Energy consumption per capita
			conservation	Reduce energy use			0		0		Energy consumption per unit of area
	pact									0	Energy consumption per unit of transportation
apital	Reduce environmental impact			Reduce waste generation by production volume	0			0			Waste generated per unit of output
f natural c	e environ	Resources, waste	Waste reduction	Reduce use of resources in offices		0	0		0		Copier paper use per capita
e return o	Reduc			Reduce waste generation at new construction sites						0	Waste generated per building
Contribute to the return of natural capital		EMS,	EMS certificatio	on .	0	0		0			Number of business sites with EMS certification
Contril		zero emissions	Expand zero en	nissions activities	0	0		0			Number of business sites that have achieved zero emissions
		Other	Reduce water u	se	0			0			Water usage
		environmental impact	Reduce atmosp	heric VOC emissions	0			0			VOC emissions
		Business site	Improve quality business sites	y of green space on	0	0					JBIB Land Use Score Card® points
	ironmeni	activities	Promote Sekisu	ii Environment Week	0	0	0	0	0		Ratio of participants to total employees
	Conserve natural environment		lana	Activities centered on production sites	0	0					Number of business sites implementing self- guided activities
	onserve n	Activities in partnership with local communities	Japan Activities centered on sales companies				0				Number of activity blocs
			Overseas					0	0		Five sites continue the activities at least once a year

Medium-Term Targets (2014-2016)	Fiscal 2015 Targets	Fiscal 2015 Results 🗸	Evaluation	Page
50%	47%	44.3%	×	Data Book 9
30 products	(Cumulative) 20 products (Fiscal 2015: 10)	(Cumulative) 37 products (Fiscal 2015: 15)	0	_
Total emissions level maintained (compared to fiscal 2013)	±0%	-4.5% (Japan: -9.9%, overseas: -0.6%)	0	Report 22 Data Book 10
-3% (compared to fiscal 2013)	-2%	-2.6% (Japan: +1.1%, overseas: -11.7%)	0	Data Book 10
-3% (compared to fiscal 2013)	-2%	-9.2%	0	_
-3% (compared to fiscal 2013)	-2%	-10.0% (Japan: -10.0%, overseas: -10.2%)	0	_
-3% (compared to fiscal 2013)	-2%	+0.5%	×	Data Book 11
-12% (compared to fiscal 2013)	-8%	+2.9% (Japan: +4.4%, overseas: -9.1%)	×	Data Book 12
-6% (compared to fiscal 2013)	-4%	-21.1% (Japan: -21.2%, overseas: -11.5%)	0	Data Book 13
Sekisui Heim 825kg/building Two-U Home 1,375kg/building	Sekisui Heim: 870kg/building Two-U Home: 1,420kg/building	Sekisui Heim: 1,233kg/building Two-U Home: 1,825kg/building	×	Data Book 13
10 business sites certified	(Cumulative) 4 business sites	(Cumulative) 5 business sites	0	Data Book 16
13 business sites achieved	(Cumulative) 4 business sites	(Cumulative) 8 business sites	0	Data Book 12
No change in total volume (compared with fiscal 2013)	±0%	-5.8% (Japan: -6.4%, overseas: -3.7%)	0	Data Book 13
No change in total volume (compared with fiscal 2013) (Overseas 2014 BM)	±0%	Japan -7.7% Still tallying overseas data	0	Data Book 15
+10 points (compared to fiscal 2013)	+6 points	+8.0 points	0	Report 23
100%	80%	67%	×	_
25 business sites	15 business sites	20 business sites	0	_
7 blocs	2 additional blocs	2 additional blocs (Activities started in all seven blocs)	0	_
5 bases	5 bases	5 bases	0	_

## Sekisui Chemical Group's Environmental Accounting



To promote efficient environmental management and fulfill corporate accountability responsibilities, the Sekisui Chemical Group employs environmental accounting that makes it possible to ascertain the costs and effects of environmental conservation activities. Calculation is conducted by referring to the Environmental Accounting Guidelines 2005 issued by the Japanese Ministry of the Environment, with the addition of the Sekisui Chemical Group's own concepts, such as external economic benefits (estimated effects).

In fiscal 2015, the number of production business sites with collectible data decreased due to plant closures. In addition, Sekisui Heim Kyushu Co., Ltd. was unable to provide data following the Kumamoto Earthquake

Total costs increased year on year, reflecting higher upstream and downstream costs as well as R&D spending, despite decreases in costs within business areas and in administration

With regard to investments, the increase in those for R&D was significant. Turning to economic effects, profit on sales of valuable resources decreased, and there was a decrease in earnings from the sale of electricity generated at megasolar power plants that have been recorded since 2013. Moreover, cost reductions from energy conservation activities decreased, while cost savings from waste reduction activities increased. External economic effects increased steadily due to factors such as the sale of homes with solar power generation systems.

### Summation of Environmental Accounting Data

- (1) Summation period: April 1, 2015, to March 31, 2016
- (2) Scope of summation: 45 target production sites (as listed on page 3 of this Data Book) + five laboratories + each department of headquarters + back offices of division companies + 14 housing sales companies.
- Under the scope of data collection in fiscal 2013, there were 44 production business sites + five laboratories + each department of headquarters + back offices of division companies + 15 housing sales companies.
- Under the scope of data collection in fiscal 2014, there were 47 target production sites + five laboratories + each department of headquarters + back offices of division companies + 15 housing sales companies.

Added were: Yamanashi Sekisui Co., Ltd., Hanyu Sekisui Co., Ltd., Sekisui Nano Coat Technology Co., Ltd.

The following business sites were removed from the scope of data collection in fiscal 2015:

Sekisui Chemical Co., Ltd. Tokyo Plant (plant closure), Sekisui Aqua Systems Co., Ltd. Shizuoka Plant (plant closure) Housing sales company Sekisui Heim Kyushu Co., Ltd. was unable to collect data following the 2016 Kumamoto Earthquake.

- Depreciation amounts are the same as those for financial accounting. Investment amounts are based on budget approvals during the summation period.
- Expenditures and investments that contain other than environmental conservation activities are distributed pro-rata in 10% increments.

### Environmental Conservation Costs (Sekisui Chemical Group)

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	Items	FY:	2013	FY2	2014	FY2	015
Category	Description of main activities	Costs	Investments	Costs	Investments	Costs	Investments
	Prevention of air, water, and noise pollution, etc.	1,243	192	1,284	318	1,170	229
1) Costs within business areas	Countermeasures against global warming (energy saving), etc.	732	885	503	1,026	442	383
	Waste reduction, recycling, disposal, etc.	4,467	280	4,442	84	4,203	119
2) Upstream/downstream costs	Cost increases due to URU, switching to packaging/packing methods involving reduced environmental impact, greener purchasing, etc.	334	5	231	0	243	0
3) Administrative costs	Environmental education, EMS maintenance, running costs for green action organization, information disclosure, etc.	1,818	3 4	2,077	37	2,069	1
4) Research & development costs	Research and development on environmental conservation	3,183	999	2,849	230	5,483	1,369
5) Social activities costs	Social contributions, etc.	338	1,754	331	0	337	1
6) Environmental damage costs	Nature restoration, etc.	30	0	32	0	30	0
	Total	12,144	4,120	11,748	1,694	13,977	2,103
Total amount of R&D costs* and i	nvestment in the fiscal period (million yen)	27,721	16,217	29,453	18.560	31,693	23,949
	nmental conservation activities to total (%)	11.5		9.7		17.3	

<sup>\*</sup> R&D costs are the total for all consolidated companies

## Environmental Conservation Benefits (Sekisui Chemical Group)

		Environn	nental conserva	ation ben	efits					Environmental performan	ce criteria: pe	r unit of ou	tput; Total	Self-
Descript	tion of effects	Item		Unit	FY2013	FY2014	FY2015	Effect (15-14)	See page	Item	Unit	FY2014	FY2015	evalu- ation
	Effects on invested	Amount of energy	(1) Electricity	TJ	3,360	3,423	3,234	-189	Data Book10	(1) Energy usage per unit of	GJ/ton	1.71	1.71	
	resources	usage 1	(2) Fuel	TJ	2,259	2,172	2,113	-59	Data Book10	output (electricity + fuel) 1	GJ/toll	1.71	1./1	
Effects within		(3) CO <sub>2</sub> emissions 2		Thousand tons	312.1	311.6	297.6	-14.0	Data Book10	_	_	_	_	0
business	Effects on environmental	(4) Volume of environment pollutants discharged		Tons	554.3	630.9	537.2	-93.7	Data Book15	_	_	_	_	0
	impact and waste	(5) Waste generated 4		Thousand tons	35	34.1	31.7	-2.4	Data Book12	(2) Waste generated per unit of output	kg/ton	36	35.2	0
		(6) Outsourced disposal	5	Thousand tons	0.13	0.04	0.02	-0.02	_	(3) Outsourced disposal per unit of output	kg/ton	0.04	0.02	0
Upstream/ downstream effects	Effects related to products/ services	CO <sub>2</sub> reduction by phot power generation, etc.		Thousand tons	316	362	394	32	_	_	_	_	_	0
		Business sites attaining ISO 14001	New acquisitions	Sites	4	2	3	_	_	Business sites attaining	Total number	94	97	
Other		and other certifications	Renewals	Sites	17	15	15	_	_	certifications 7	sites	''	, ,	
environmental	Others 6	Number of business sit zero emissions 8	es achieving	Sites	2	2	6	-	_	Number of business sites achieving zero emissions 8	Total number of business sites	152	158	0
conservation		CO <sub>2</sub> reduction from use of m	negasolar facilities	Thousand tons	2.95	5.32	5.06	-0.26	_	_	_	_	_	_

1 Conversion into thermal units uses the coefficient published by the Ministry of Economy, Trade and Industry. 2 Emissions at the time of manufacturing and conversion to CO<sub>2</sub> use coefficients used in environmental medium-term SEKISUI Sustainable Plan Take-Off (Data Book p.10) 3 Class I Designated Chemical Substances specified by PRTR Law. 4 Amount discharged + Amount disposed of at price + Amount incinerated within own premises. 5 Simple incineration + Landfill. 6 Including business sites not subject to environmental accounting summation, such as overseas business sites. 7 A cumulative total number of sites reviewed for factors, such as consolidation and return of certifications for housing sales companies. 8 A business site affiliated to multiple companies is counted as one.

### Economical Effects Related to Environmental Conservation Measures (Sekisui Chemical Group)

(Millions of yen)

	Description of effects	FY2013	FY2014	FY2015	Remarks
D	(1) Profit on sales of valuable resources	245	165	160	Profit on sales of valuable resources from promotion of waste segregation and recycling
Revenue	(2) Revenues from sale of electricity	216	393	365	Revenues from sale of electricity generated by megasolar facilities
	(3) Savings from simplified packaging	6	5	4	
Cost	(4) Cost savings through energy-saving activities	546	669	974	
	(5) Cost savings through waste-reduction activities, etc.	698	1,118	1,170	Including resource-saving activities
	Subtotal (actual effects)	1,712	2,350	2,673	
(6) Contr	ibution to environmental conservation activities 9	7,517	7,150	6,755	Contribution of environmental conservation activities to added value at business sites 10
(7) Extern	nal economic effect	21,215	23,898	28,761	Monetary conversion of impact from photovoltaic generation systems and No-Dig pipe rehabilitation method
	Subtotal (estimated effects)	28,732	31,049	35,516	
	Total	30,444	33,399	38,189	

9 Excluding housing sales companies 10 (Added value from business sites) × {(Costs within business areas + Administrative costs)/(Total production costs excluding materials costs)}

### Environmental Conservation Costs (by Each Division Company)

(Millions of ven)

	Items	Housing (	Company 1	Enviror	structure & mental Company		formance Company		tisui Il Group2
Category	Description of main activities	Costs	Investments	Costs	Investments	Costs	Investments	Costs	Investments
	Prevention of air, water, and noise pollution, etc.	927	76	57	9	125	144	1,170	229
Costs within     business areas	Countermeasures against global warming (energy saving), etc.	114	83	84	67	166	193	442	383
basiness areas	Waste reduction, recycling, disposal, etc.	3,598	0	282	1	291	118	4,203	119
2) Upstream/ downstream costs	Cost increases due to URU, switching to packaging/packing methods involving reduced environmental impact, greener purchasing, etc.	209	0	9	0	7	0	243	0
3) Administrative costs	Environmental education, EMS maintenance, running costs for green action organization, information disclosure, etc.	471	0	321	1	411	0	2,069	1
4) Research & development costs	Research and development on environmental conservation	758	175	1,835	0	537	56	5,483	1,369
5) Social activities costs	Social contributions, etc.	176	0	51	1	40	0	337	1
6) Environmental damage costs	Nature restoration, etc.	0	0	0	0	30	0	30	0
	Total	6,254	333	2,640	77	1,607	511	13,977	2,103
Total amount of R&D	costs3 and investment in the fiscal period (million yen)	4,758	8,758	5,311	3,859	16,727	8,855	31,693	23,949
Ratio of amount rela	ted to environmental conservation activities to total (%)	15.9	3.8	34.6	2.0	3.2	5.8	17.3	8.8

<sup>1</sup> Including 33 business sites of housing sales companies. 2 Total of three division companies and departments of headquarters. 3 R&D costs are the total for all consolidated companies.

### Environmental Conservation Costs (by Environmental Conservation Measure)

(Millions of yen)

	Items	Housing (	Company 1	Enviror	structure & nmental Company		formance Company		kisui al Group2
Category	Description of main activities	Costs	Investments	Costs	Investments	Costs	Investments	Costs	Investments
1. Prevention of global warming	Reduction of CO <sub>2</sub> emissions, etc.	108	26	113	61	178	193	478	320
2. Ozone layer protection	Reduction of chlorofluorocarbon emissions, etc.	4	0	0	3	0	0	4	3
3. Conservation of air quality	Prevention of air pollution by reducing polluting substances	262	15	41	6	36	49	366	70
4. Prevention of noise and vibration	Prevention of noise and vibration pollution	3	0	3	3	7	2	15	4
Conservation of water environment, soil environment, ground quality	Preservation of water quality, prevention of subsidence	163	61	24	0	114	92	338	153
6. Waste reduction and recycling	Reduction and treatment of waste, recycling, etc.	3,746	0	286	1	318	118	4,384	119
7. Reduction of chemical substances	Risk management of chemical substances, etc.	488	0	2	0	5	2	495	2
8. Conservation of natural environment	Nature conservation, etc.	42	0	117	1	37	0	306	1
9. Others	Others	1,438	232	2,053	3	912	56	7,590	1,431
	Total	6,254	333	2,640	77	1,607	511	13,977	2,103

<sup>1</sup> Including 33 business sites of housing sales companies. 2 Total of three division companies and departments of headquarters.

### Environmental Conservation Benefits (by Each Division Company)

ion of effects	Items		Unit	Housing Company1			Urban Infrastructure & Environmental Products Company			High Performance Plastics Company			Sekisui Chemical Group2			
		Items		FY2014	FY2015	Effect (15-14)	FY2014	FY2015	Effect (15-14)	FY2014	FY2015	Effect (15-14)	FY2014	FY2015	Effect (15-14)	Book page
	Amount of	(1) Electricity	TJ	381	374	-8	1,363	1,232	-131	1,094	1,063	-31	3,423	3,234	-189	10
esources	energy usage4	(2) Fuel	ŢJ	108	101	-7	101	91	-10	1,729	1,703	-26	2,172	2,113	-59	10
	(3) CO <sub>2</sub> emissions5		Thousand tons	28.2	27.4	-0.8	83.7	75.6	-8.0	152.1	149.1	-3.1	311.6	297.6	-14.0	10
nviron-			Tons	4.8	5.0	0.2	61.4	51.3	-10.1	560.9	477.6	-83.3	630.9	537.2	-93.7	15
mpact and	(5) Waste generated	7	Thousand tons	7.0	5.6	-1.4	6.1	6.8	0.7	19.2	17.5	-1.8	34.1	31.7	-2.4	12
vaste	(6) Outsourced dispo	sal8	Thousand tons	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	-0.02	0.04	0.02	-0.02	
iffects elated to products/ ervices			Thousand tons	362	394	32	_	_	_	_	_	_	362	394	32	_
	Business sites attaining	New acquisitions	Sites	0	0	_	1	1	_	1	2	_	2	3	_	_
N+horr0	certifications	Renewals	Sites	0	4	_	5	3	_	6	7	_	15	15	_	
/u1C13//			Sites	0	0	_	1	1	_	1	5	_	2	6	_	_
		use of	Thousand tons	3.31	3.20	-0.10	0.89	0.72	-0.17	1.12	1.13	0.01	5.32	5.06	-0.26	_
e e e e e e e e e e e e e e e e e e e	ifects on nviron- sental npact and aste ifects lated to roducts/ ervices	ifects on niviron- inpact and aste (6) Outsourced dispo feets lated to roducts/ ervices  (3) CO2 emissions5  (4) Volume of enviror pollutants discharal (5) Waste generated (6) Outsourced dispo CO2 reduction by phower generation, et power generation, et certifications Number of business achieving zero emiss	(3) CO2 emissions5  (4) Volume of environmental pollutants discharged6 (5) Waste generated7 (6) Outsourced disposal8  fects lated to coducts/ privices  Business sites attaining ISO 14001 and other certifications  Number of business sites achieving zero emissions 10 CO2 reduction from use of	interest of the control of the contr		Columber   Columber	20   20   20   20   20   20   20   20	23 CO2 emissions5   Thousand tons   28.2   27.4   -0.8   83.7		Coreduction by photovoltaic power generation, etc.   Coreduction by photovoltaic power generation, etc.	Coreduction by photovoltaic provises   Business sites attaining ISO 14001 and other certifications   Number of business sites attaining SO 12001 and other certifications   Core duction from use of   Core duct	Coreduction by photovoltaic power generation, etc.   Coreduction from use of   Coreduction fro	Coreduction by photovoltaic providers theres9   Core reduction from use of   Core duction from use o	Correct certification   Correct certifications   Correct certificatio	Columbia   Columbia	Coreduction by photovoltaic power generation, etc.   Coreduction from use of   Thousand tons   Sites and tons   Core eduction from use of   Thousand   Core   Core

<sup>4</sup> Conversion into thermal units uses the coefficient published by the Ministry of Economy, Trade and Industry. 5 Emissions at the time of manufacturing and conversion to CO2 use the coefficients used in the environmental medium-term SEKISUI Sustainable Plan Take-Off (see Data Book, p. 10). 6 Class I Designated Chemical Substances specified by PRTR Law. 7 Amount discharged + Amount disposed of at price + Amount incinerated within own premises 8 Simple incineration + Landfill 9 Including business sites not subject to environmental accounting summation, such as overseas business sites 10 A business site affiliated to multiple companies is counted as one.

## Economic Effects Related to Environmental Conservation Measures (by Each Division Company)

(Millions of ven)

	Description of effects	Housing Company1	Urban Infrastructure & Environmental Products Company	High Performance Plastics Company	Sekisui Chemical Group2	Remarks
Revenue	(1) Profit on sales of valuable resources	21	23	92	160	Profit on sales of valuable resources from promotion of waste segregation and recycling
nevenue	(2) Revenues from sale of electricity	231	52	81	365	Revenues from sale of electricity generated by megasolar facilities
	(3) Savings from simplified packaging	0	3	1	4	
Cost savings	(4) Cost savings through energy-saving activities	11	52	883	974	
	(5) Cost savings through waste-reduction activities, etc.	25	81	1,056	1,170	Including resource-saving activities
	Subtotal (actual effects)	287	210	2,114	2,673	
(6) Contrib	ution to environmental conservation activities 11	1,289	1,563	3,643	6,755	Contribution of environmental conservation activities to added value at business sites 12
(7) Extern	al economic effect	20,699	8,062	_	28,761	Monetary conversion of impact from photovoltaic generation systems and No-Dig pipe rehabilitation method
Sub-total	Sub-total (estimated effects)		9,624	3,643	35,516	
	Total		9,834	5,756	38,189	

<sup>11</sup> Excluding housing sales companies 12 (Added value from business sites) × {(Costs within business areas + Administrative costs)/(Total production costs excluding materials costs)

## Integrated Index: SEKISUI Environmental Sustainability Index (P20)



### What is the SEKISUI Environmental Sustainability Index?

The SEKISUI Environmental Sustainability Index is a single indicator of the level of impact on the environment caused by the corporate activities of the Sekisui Chemical Group (i.e. its use of natural capital) and the Group's contributions to the environment (i.e. its return of natural capital). This index integrates all of the effects of the key implementation objectives of the Group's medium-term plan, such as reducing environmental impact from a variety of sources, increasing products and services that contribute to the environment, and conserving the natural environment.

### Results of calculation -

Based on fiscal 2015 performance, the SEKISUI Environmental Sustainability Index was calculated as follows. With environmental impact equal to 100 representing the use of natural capital, the return of natural capital as contributions back to the environment is 76.4, representing an 11.9% increase compared with fiscal 2014.

## **Results of Fiscal 2015 Calculation** 100 **Environmental impact** = Use of natural capital 36.5 0.9 Contribution from products 76.4 Environmental contribution = Return of natural capital 1.2 **Calculation Method**

(1) Gather quantitative data on the level of environmental impact and benefits of environmental activities by category

Environmental impact and environmental	Raw material usage     Water used	GHG emissions     Emissions of chemical substances	Volume of waste generated     Area of land used
activities (i)	• Environmental contribution of each product	• Employee participation rate in activities to conser	ve the natural environment

(2) A database of coefficients collected by experts to calculate environmental impact was used for calculating the impact (negative factors) and contributions (positive factors) by category

Raw data by category  $Ai \times Coefficient ki = Environmental impact (Ti)$ 

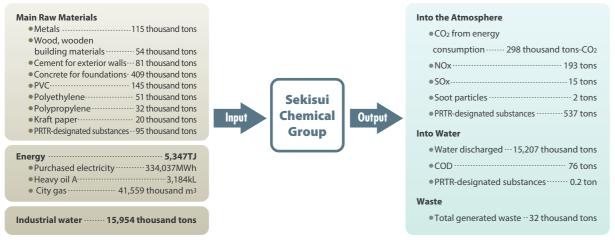
(3) Total of environmental impact and contribution for each category (integrated total)

 $\Sigma$  (Raw data for each category) Ai  $\times$  Coefficient ki =  $\Sigma$  (Environmental impact Ti)

Note: Units are the amount of damage calculated (= amount necessary to restore the environment to the original conditions [living organisms, plants, and global warming] if our activities damaged the environment)

After collecting the raw data in (1) above, stages (2) and (3) are calculated using a customized version of the Life-Cycle Impact Assessment Method based on Endpoint modeling 2 (LIME2) developed in Japan by Professor Norihiro Itsubo at Tokyo City University. (See p. 30 of this Data Book for calculation basis.)

# Material Balance (in Japan)



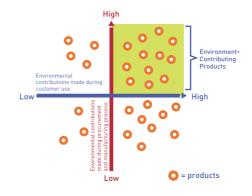
Note: Certain main raw materials are undisclosed for business strategy reasons

## **Environment-Contributing Products** P21

## Environment-Contributing Products Sales and Sales-Ratio Trends



### **Conceptual Diagram of Environment-Contributing Products**



### **Prerequisites for Environment-Contributing Products**

Environments targeted <sup>1</sup>	Natural/social environments
Scope of contribution <sup>2</sup>	All/society-wide
Level of contribution <sup>3</sup>	A level above conventional products/systems

1 Excluding living environments

3 Set approved standards for each type of environmental contribution

### Criteria for Environment-Contributing Products Definition (products that satisfy the two conditions below)

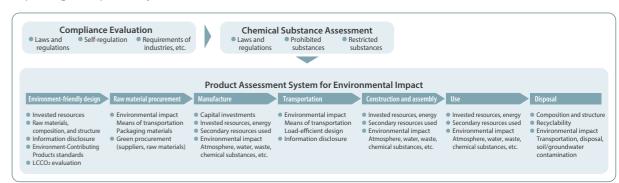
- Products and businesses able to reduce environmental impact of our customers and society as a whole.
- Products or systems having at least a certain degree of effect in reducing environmental impact compared with similar conventional products and systems

### Types of Environmental Contribution

- Able to reduce CO<sub>2</sub> emissions and generate energy
- Able to reduce waste
- Able to achieve resource conservation
- Able to save water and improve aquatic environments
- Able to prevent chemical substance pollution
- Able to directly preserve biodiversity
- Interlayer materials essential for functionality of end-user products that contribute to the environment
- Able to reduce environmental impact during disasters

## **Product Assessment System for Environmental Impact**

Targets: Products and processes Scope: All stages of the product lifecycle



## **Biodiversity** P23

### **Initiatives Envisioned under Biodiversity Guidelines**

Assessment and reduction of the impact of business activities on biodiversity	<ul> <li>Developing assessment methods and conducting assessments, reducing impact</li> <li>Promoting biodiversity-conscious purchasing</li> <li>Greening of business sites (promoting landscaping and biotope development)</li> </ul>		
2. Development and promotion of related technologies and products	• Incorporating biodiversity assessments at the product development stage		
3. Raising employees' awareness	Conducting nature conservation activities at all business sites     Expanding Sekisui Nature Study Course and nature conservation activities		
4. Dialogue and cooperation with external stakeholders	Supporting Innovations Inspired by Nature, and holding periodic forums     Supporting nonprofit and other organizations through Keidanren (Japan Business Federation)		
5. Transmittance of information	Exhibiting at Eco-Products Exhibition and other events     Providing information in CSR Report, Site Reports, and websites     Educating next generation (Children's Nature Study Course, school visits)		

## Global Warming Prevention P22

Note: Due to the revised scope of summation, overseas figures have been revised retroactively.

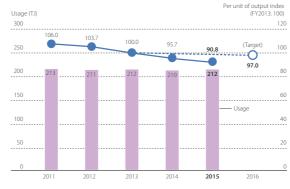
### Greenhouse Gas (GHG) Emissions during Manufacturing / Japan



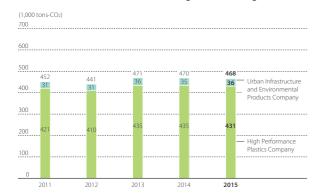
### Energy Usage and per Unit of Output (Index) during Manufacturing / Japan



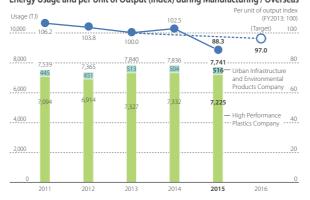
## Laboratory Energy Usage and per Unit of Output (Index)



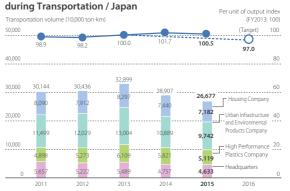
### Greenhouse Gas (GHG) Emissions during Manufacturing / Overseas



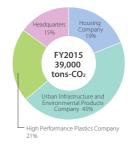
## Energy Usage and per Unit of Output (Index) during Manufacturing / Overseas



## Transportation Volume and Energy per Unit of Output (Index)

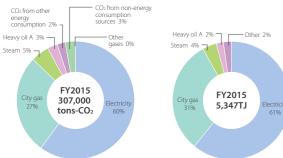


### CO<sub>2</sub> Emissions at the Transportation Stage / Japan

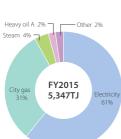


- Amount transported in fiscal 2015: 270 million ton-kilometers
   Calculation method: Either the improved ton-kilometer method, fuel consumption method, or fuel cost method, depending on the product and transportation method

### Breakdown of Greenhouse Gas (GHG) Emissions / Japan



### Breakdown of Energy Usage / Japan



### CO<sub>2</sub> Emission Coefficients (SEKISUI Environmental Sustainability Plan Take-Off)

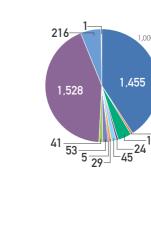
We aim to reduce all types of greenhouse gases under the environmental medium-term SEKISUI Environmental Sustainability Plan Take-Off. The conversion coefficients for CO2 emissions are the values specified (as of March 2009) under the greenhouse-gas emissions calculation, reporting, and disclosure system established by Japanese law, with uniform figures used for each fiscal year.

Purchased electricity	0.555 tons-CO <sub>2</sub> /MWh
Heavy oil A	2.71 tons-CO <sub>2</sub> /kL
City gas	2.08 tons-CO <sub>2</sub> /thousand Nm <sup>3</sup>
LNG	2.70 tons-CO <sub>2</sub> /ton
Heating oil	2.49 tons-CO <sub>2</sub> /kL
Diesel oil	2.62 tons-CO <sub>2</sub> /kL
Gasoline	2.32 tons-CO <sub>2</sub> /kL
LPG	3.00 tons-CO <sub>2</sub> /ton
Purchased steam	0.179 tons-CO <sub>2</sub> /ton

Source: Calculation and Reporting Manual for Greenhouse Gas Emissions (published in March 2009 by

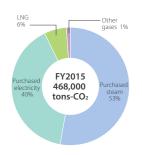
### **Greenhouse Gas Emissions from Supply Chain**



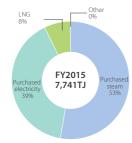




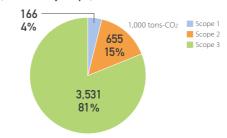
### **Breakdown of Greenhouse** Gas (GHG) Emissions / Overseas







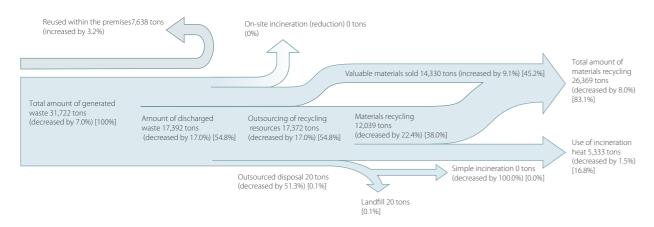
### **Greenhouse Gas Emissions from Business Activities** (Classified by Scope)





Note: Due to the revised scope of summation, overseas figures have been revised retroactively.

Fiscal 2015 Annual Production Site Waste Generation and Disposal Conditions / Japan Change over previous year is in ( ) and proportion of total waste generation is in [ ].



## **Zero Emissions Achievement Criteria and Accreditation** System of the Sekisui Chemical Group

- (1) Not engaging in any outside incineration without thermal utilization (thermal recycling), or landfill outside or inside of facilities (recycling ratio: 100%)
- (2) If the waste quantity is small and it is a type of waste that has never been recycled before, recycling methods and relevant contractors must be identified and a service agreement must be executed.
- Also, we have established uniform evaluation criteria known as the Zero Emissions Achievement Evaluation List. We have established a system designed to conduct internal checks and issue approvals for the status of observance of the evaluation criteria as well as legal compliance, rules and signage for waste segregation and storage, management of related facilities, and waste reduction planning and management. The list obliges us to conduct inspections of outside contractors and to clarify treatment routes in order to enhance the management system through these activities

### Waste Generated by Production Sites and per Unit of Output (Index) / Japan



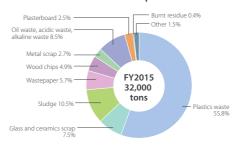
### Status of Zero Emissions Achievement

Achieved at 42 plants in Japan and 11 overseas plants, including those of affiliates. (Includes one plant in Japan and five overseas plants that achieved zero emissions in fiscal 2015)
Achieved at all laboratories by fiscal 2012
Achieved at all locations by fiscal 2003
Achieved at all locations by fiscal 2004
Achieved as of fiscal 2005
As of end of fiscal 2015, 99% recycling rate for Designated Construction Materials (scrap concrete and wood chips)

### Waste Generated by Production Sites and per Unit of Output (Index) / Overseas



### Breakdown of Generated Waste / Japan



### Waste Treatment Methods / Overseas



Note: See page 3 of this Data Book for scope of summation

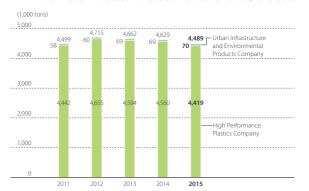
### Waste Generated by New House Construction (per House) / Japan





Amount of Water Extracted for Use at Production Sites / Japan

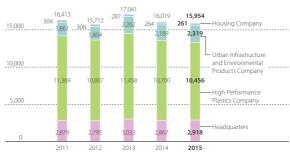
### Amount of Water Extracted for Use at Production Sites / Overseas



Note: See page 3 of this Data Book for scope of summation

(1,000 tons)

20,000

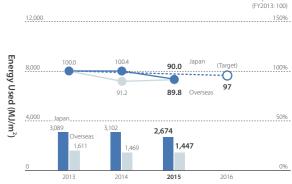


## **Environmental Performance in Offices**

### Copier Paper Use at Offices per Unit of Output (Index)



## Energy Usage at Offices per Unit of Output (Index)

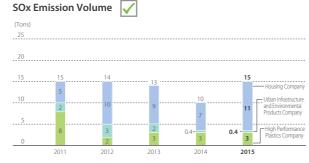


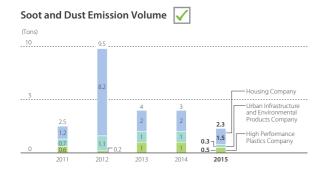
Per unit of output index

Note: Calculated using electricity and fuel for company cars for Japan, only electricity for oversea

## Atmospheric and Water-Related Emissions P22









### **Preventing Pollution**

The Sekisui Chemical Group is working to meet the targets of legal and regulatory restrictions and to reduce discharge of pollutants through appropriate maintenance and control and periodic inspection of the wide range of equipment it uses.

## Disposal and Storage of Machines and Equipment That Contain PCBs

Stored transformers and condensers that contain PCBs are being disposed of steadily, beginning with sites for which acceptance at PCB treatment facilities

In addition, at sites with machines and equipment that contain PCBs in storage, such devices are managed strictly and thoroughly, through means including locked storage and periodic inspection

## **Environmental Incidents, Complaints, and Emergency Responses**

## Environmental Incidents, Complaints, etc.

In fiscal 2015, there was one fire accident and four complaints. We have implemented measures to prevent a reoccurrence of environmental complaints.

### Environmental Complaints, etc.

		Description	Countermeasures
Incidents	Flames emitted from second-stage silencer exhaust pipe on a vent pump		Silencer specification changed, fire damper installed
Complaints	Noise	Engine idling at car park early in morning	Thorough ban on engine idling, cars parked facing outward
		Nighttime operations	Setting of work end-times, work procedures compiled
	Q	White smoke emissions being blown across neighboring factories	White smoke reduced by changing process prerequisites
	Other	Directed to provide survey report on contractor status due to waste disposal contractor non-compliance	Survey report on contractor status submitted

### **Emergency Response**

In order to prevent the occurrence and spread of environmental contamination in the event of an emergency, at least once every year each of our business sites carries out emergency response and reporting drills, assuming a variety of hypothetical cases relevant to the nature of each business site. The major drills performed in fiscal 2015 are as follows:

### **Emergency Response and Reporting Drills**

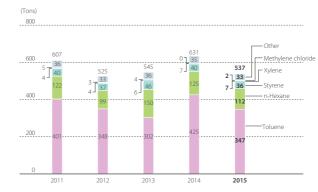
Simulated emergency situation	No. of times drills performed
Leakage and outflow of oils	43
Atmospheric discharge of solvents	0
Fire	37
Earthquake	8
Emergency communication training	17
Comprehensive disaster drills	38
Responding to other equipment-related emergencies	7

## Chemical Substances <a></a>

Summation Results Based on the PRTR Law (Calculations have been made for substances with handling volume of one ton or more at the individual business sites surveyed.)

	Govt. Emission volume Transfer volume				(Ton					
Substance	ordinance notification no.	Transaction volume	Atmospheric	Public water areas	In-house soil	In-house landfill	Sewage system	Transfer in waste disposal		Detoxificatio
Ethyl acrylate	[3]	1.2	0.073	0	0	0	0			0.9
Acrylic acid and aqueous salt solutions thereof	[4]	13.5	0	0	0	0	0	0	1.4	1:
n-Butyl acrylate	[7]	218.5	0.41	0	0	0	0	0	2.4	216
Acrylonitrile	[9]	439.5	3.9	0	0	0	0	0	0.0080	435
Acetaldehyde	[12]	335.4	0.24	0	0	0	0	0	0	335
Acetonitrile	[13]	126.8	10	0	0	0	0	0	117	(
2,2'-Azobisisobutyronitrile	[16]	3.9	0	0	0	0	0	0	0	3.9
2-Aminoethanol	[20]	6.8	1.3	0	0	0	0	0	0	5.4
Antimony and its compounds	[31]	10.5	0	0	0	0	0	0	1.0	(
Isobutyraldehyde	[35]	24.1	0.33	0	0	0	0	0	0	24
Ethylbenzene	[53]	2.3	2.3	0	0	0	0	0	0	(
ε-Caprolactam	[76]	27.7	0	0.0090	0	0	0	0	0	28
Xylene	[80]	42.0	7.2	0	0	0	0	0	0.0010	C
Vinyl chloride	[Special 94]	88,764.3	3.5	0.14	0	0	0	0	0	88,761
Chloroform	[127]	2.0	0	0	<u> </u>	0	0	0	0	2.0
Vinyl acetate	[134]	46.7	2.7	0		0	0	0	2.9	38
Inorganic cyanide compounds (not including complex salts and cyanate)	[144]	4.6	0	0	0	0	0	0	0	4.6
Cyclohexylamine	[154]	7.2	0.40	0	0	0	0	0	0	6.8
Methylene chloride	[186]	179.5	2.3	0	0	0	0	0	0	C
Divinylbenzene	[202]	1.7	0	0	0	0	0	0	0	1.7
2,6-di-t-butyl-4-cresol	[207]	52.7	0	0	0	0	0	0	0	52
N,N-dimethylacetamide	[213]	7.9	0	0	0	0	0	0	7.9	C
N,N-dimenthylformamide	[232]	1.4	0	0	0	0	0	0	1.4	C
Organic tin compounds	[239]	131.4	0	0	0	0	0	0	3.5	C
Styrene	[240]	1,647.8	36	0	0	0	0	0	0.012	867
Terephthalic acid	[270]	59.5	0	0	0	0	0	0	0	60
1,2,4-Trimethylbenzene	[296]	1.5	1.5	0	0	0	0	0	0	C
Toluene	[300]	861.3	347	0	0	0	0	0	58	269
Lead compounds	[Special 305]	701.0	0	0.0030	0	0	0.0010	0.18	2.1	C
Nickel compounds	[Special 309]	1.1	0	0	0	0	0	0	0.56	C
Phenol	[349]	92.8	0.0092	0	0	0	0	0	0	89
Bis-(2-ethylhexyl) phthalate	[355]	133.7	0	0	0	0	0	0	3.7	C
n-Hexane	[392]	133.2	112	0	0	0	0	0	4.6	17
Benzaldehyde	[399]	4.0	0	0		0	0	0	0	4.0
Poly (oxyethylene) = alkyl = ether (C = 12-15 and other blends)	[407]	1.8	0	0	0	0	0	0	0	C
Formaldehyde	[Special 411]	69.6	0.040	0	0	0	0	0	0	70
Manganese and its compounds	[412]	5.4	0	0	0	0	0	0	5.4	C
Phthalic anhydride	[413]	1.0	0	0	0	0	0	0	0	1.0
Methacrylate	[415]	188.3	1.1	0	0	0	0	0	0.0050	187
Methyl methacrylate	[420]	139.2	1.2	0	0	0	0	0	0	138
Methylnaphthalene	[438]	10.7	0.053	0	0	0	0	0	0	11
Methylenebis (4,1-phenylene) = diisocyanate	[448]	886.8	3.5	0	0	0	0	0	1.3	(
		95,390.2	537	0.16	0	0	0.0010	0.18	213	91,638

## Emission and Transfer Volume by Substance (PRTR Law)



## Discharge of Volatile Organic Compounds (VOCs) into the Atmosphere



## **Environmental Management System Third-Party Certified Business Sites**

### **Housing Company**

Sekisui Chemical Co., Ltd. Tsukuba R&D Site Hokkaido Sekisui Heim Industry Co., Ltd. Tohoku Sekisui Heim Industry Co., Ltd. Kanto Sekisui Heim Industry Co., Ltd. Tokyo Sekisui Heim Industry Co., Ltd. Chubu Sekisui Heim Industry Co., Ltd. Kinki Sekisui Heim Industry Co., Ltd. Chushikoku Sekisui Heim Industry Co., Ltd. Kyushu Sekisui Heim Industry Co., Ltd. Sekisui Board Co., Ltd. Minakuchi Plant Sekisui Board Co., Ltd. Gunma Plant Sekisui-SCG Industry Co., Ltd. SCG-Sekisui Sales Co., Ltd.

[ ]: Organizations in square parentheses are included in the scope of certification. Some sites not shown above may include related sections that have attained ISO 14001 certification

☆ Eco Action 21; others ISO 14001

\* The Sekisui Chemical Co., Ltd. Tsukuba R&D Site and Development Center share a single certification.

# Urban Infrastructure and Environmental Products Company

Sekisui Chemical Co., Ltd. Shiga-Ritto Plant Sekisui Chemical Co., Ltd. Gunma Plant Sekisui Chemical Co., Ltd. Kyoto R & D Laboratories Chiba Sekisui Industry Co., Ltd. Sekisui Chemical Hokkaido Co., Ltd. Toto Sekisui Co., Ltd. Ota Plant Okayama Sekisui Industry Co., Ltd. Shikoku Sekisui Co., Ltd. Kyushu Sekisui Industry Co., Ltd. Nara Sekisui Co., Ltd. Hanyu Sekisui Co., Ltd. Yamanashi Sekisui Co., Ltd. Sekisui Home Techno Co., Ltd. Nippon No-Dig Technology Co., Ltd. Sekisui Polymer Innovations, LLC. Bloomsburg Plant Sekisui Polymer Innovations, LLC Holland Plant Eslon B.V. Sekisui Rib Loc Australia Pty. Ltd. Sekisui Refresh Co., Ltd. Sekisui Industrial Piping Co., Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Qingdao) Plastic Co., Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd. Sekisui KNT (Hebei) Environmental Technology Co., Ltd.

## Headquarters

Sekisui Chemical Co., Ltd. Development Center Tokuvama Sekisui Industry Co., Ltd. Hinomaru Co., Ltd. Tosu Plant Hinomaru Co., Ltd. Kanto Plant Sekisui Seikei, Ltd. Chiba Plant Sekisui Seikei, Ltd. Kanto Plant Sekisui Seikei, Ltd. Hyogo Plant Sekisui Seikei, Ltd. Hyogo-Takino Plant Sekisui Seikei, Ltd. Izumo Plant ENAX. Inc. Headquarters, Chubu office

### **High Performance Plastics Company**

Sekisui Chemical Co., Ltd. Shiga-Minakuchi Plant

Sekisui Chemical Co. Ltd. Musashi Plant

[Sekisui Fuller Company, Ltd. Shiga Plant] Sekisui Chemical Co., Ltd. Taga Plant

Sekisui Techno Molding Co., Ltd. Nara Plant

Sekisui Techno Molding Co., Ltd. Mie Plant

Sekisui Chemical Co., Ltd. Minase Site

Thai Sekisui Foam Co., Ltd. Sekisui Pilon Ptv. Ltd. Sekisui Diagnostics (UK) Ltd. YoungBo Chemical Co., Ltd. YoungBo HPP (Langfang) Co., Ltd. Sekisui High Performance Packaging (Langfang) Co., Ltd.

Sekisui S-LEC (Suzhou) Co., Ltd.

Sekisur recririo Molding Co., Etd. Mile Flant
Sekisui Techno Molding Co., Ltd. Aichi Plant
Sekisui Film Co., Ltd. Sendai Plant
Sekisui Film Co., Ltd. Nagoya Plant
Sekisui Film Co., Ltd. Shinshu-Takato Plant
Sekisui Film Co., Ltd. Kyushu-Izumi Plant
Sekisui Fuller Co., Ltd. Hamamatsu Plant
Sekisui Medical Co., Ltd. Iwate Plant
Sekisui Medical Co., Ltd. Tsukuba Plant
Sekisui Medical Co., Ltd. Amagasaki Plant
Sekisui Medical Co., Ltd. Drug Development Solutions Center
EIDIA Co., Ltd.
Sekisui Nano Coat Technology Co., Ltd.
Sekisui Techno Shoji Higashi Nihon Co., Ltd.
(Now Sekisui Material Solutions Co., Ltd. Higashi Nihon offic
Sekisui S-Lec B.V. Film Plant
Sekisui S-Lec B.V. Resin Plant
Sekisui-Alveo B.V.
Sekisui Alveo Ltd.
Sekisui Alveo BS G.m.b.H.
Sekisui S-Lec America, LLC.
Sekisui Voltek, LLC. Lawrence Plant
Sekisui Voltek, LLC. Coldwater Plant
Sekisui Specialty Chemicals America, LLC.
Pasadena Plant
Sekisui Specialty Chemicals America, LLC.
Calvert City Plant
Sekisui Specialty Chemicals Europe, S.L.
Sekisui S-Lec Mexico S.A. de C.V.
Sekisui S-Lec (Thailand) Co., Ltd.

### of cases Issues of concern Headquarters ssues to work on auditing\* Proposals (18 husiness sites) Total Nonconformity (major Nonconformity (minor)

Number of Issues of Concern in Environmental Auditing for Fiscal 2015

(for production sites and laboratories, as of end of March 2016)

(15 business sites) Observations Total Nonconformity (major Surveillance onconformity (minor (35 business sites) Observations 154 Total Nonconformity (major) Internal auditing of Nonconformity (minor) business sites

Observations Total

(47 business sites,

## CS & Quality P24-27

### **Quality Management System Third-Party Certified Business Sites**

### **Housing Company**

Sekisui Chemical Co., Ltd. Housing Company (integrated certification)

Housing Product Research & Development Departments Technology and CS Departments Hokkaido Sekisui Heim Industry Co., Ltd. Tohoku Sekisui Heim Industry Co., Ltd. Kanto Sekisui Heim Industry Co., Ltd. Tokyo Sekisui Heim Industry Co., Ltd. Chubu Sekisui Heim Industry Co., Ltd. Kinki Sekisui Heim Industry Co., Ltd. Chushikoku Sekisui Heim Industry Co., Ltd. Kyushu Sekisui Heim Industry Co., Ltd. Sekisui Global Trading Co., Ltd.

Sekisui Heim Supply Co., Ltd. Technology Department Sekisui Board Co., Ltd. Gunma Plant Sekisui Board Co., Ltd. Minakuchi Plant

### Headquarters

Sekisui Chemical Co., Ltd. R&D Center, IM Project Sekisui Chemical Co., Ltd. R&D Center, LIB Project Sekisui Seikei, Ltd. (integrated certification)

Chiba Plant Kanto Plant

Hyogo Plant

Hyogo-Takino Plant Izumo Plant

Tokuyama Sekisui Industry Co., Ltd. Sekisui Insurance Service Co., Ltd.

# Urban Infrastructure and Environmental Products Company

Sekisui Chemical Co., Ltd. Gunma Plant Sekisui Chemical Co., Ltd. Shiga-Ritto Plant Sekisui Aqua Systems Co., Ltd. Plant Engineering Division Sekisui Aqua Systems Co., Ltd. Civil Engineering & Water Treatment Division Sekisui Agua Systems Co., Ltd. Water Supply & Drainage Division Sekisui Home Techno Co., Ltd. Hanyu Sekisui Co., Ltd. Yamanashi Sekisui Co., Ltd. Sekisui Chemical Hokkaido Co., Ltd. Toto Sekisui Co., Ltd. Headquarters, Ota Plant Chiba Sekisui Industry Co., Ltd. Okayama Sekisui Industry Co., Ltd. Shikoku Sekisui Co., Ltd.

Kyushu Sekisui Industry Co., Ltd. Nippon No-Dig Technology Co., Ltd. Sekisui Polymer Innovations, LLC. Bloomsburg Plant

Sekisui Polymer Innovations, LLC. **Holland Plant** Sekisui Rib Loc Australia Pty. Ltd.

Sekisui Eslon B.V. Sekisui Refresh Co., Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd.

Sekisui KNT (Hebei) Environmental Technology Co., Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Qingdao) Plastic Co., Ltd. Sekisui Industrial Piping Co., Ltd.

### **High Performance Plastics Company**

Sekisui Chemical Co., Ltd. Musashi Plant Sekisui Chemical Co., Ltd. Shiga-Minakuchi Plant Sekisui Chemical Co., Ltd. Taga Plant Sekisui Techno Molding Co., Ltd. Aichi Plant Sekisui Techno Molding Co., Ltd. Nara Plant Sekisui Techno Molding Co., Ltd. Mie Plant Sekisui Film Co., Ltd. Sendai Plant Sekisui Film Co., Ltd. Shinshu-Takato Plant Sekisui Film Co., Ltd. Nagoya Plant Sekisui Film Co., Ltd. Kyushu-Izumi Plant Sekisui Nano Coat Technology Co., Ltd. Sekisui Fuller Company, Ltd. (integrated certification)

Hamamatsu Plant

Shiga Plant

Tokyo Office

Osaka Office

Sekisui Medical Co., Ltd. Headquarters

Sekisui Polymatech Co., Ltd.

Sekisui High Performance Packaging (Langfang) Co., Ltd.

Sekisui Voltek, LLC. Lawrence Plant

Sekisui Voltek, LLC. Coldwater Plant

Sekisui Alveo(integrated certification) Sekisui Alveo A.G.

Sekisui Alveo BS GmbH

Sekisui Alveo (Benelux) B.V.

Sekisui-Alveo S.A.

Sekisui Alveo S.r.L.

Sekisui Alveo S.a.r.L.

Sekisui Alveo Ltd.

Sekisui-Alveo B.V. YoungBo Chemical Co., Ltd.

Thai Sekisui Foam Co., Ltd.

Sekisui Pilon Pty. Ltd.

Sekisui S-Lec America, LLC.

Sekisui S-Lec B.V.

Sekisui Medical Technology (China) Ltd. Sekisui S-Lec (Thailand) Co., Ltd.

Sekisui S-Lec Mexico S.A. de C.V.

Sekisui Diagnostics,LLC.

Sekisui Diagnostics,LLC. San Diego Sekisui Diagnostics,LLC. Stamford

Sekisui Diagnostics P.E.I. Inc.

Sekisui Diagnostics (UK) Ltd.

Sekisui Virotech G.m.b.H.

Sekisui Specialty Chemicals America, LLC.

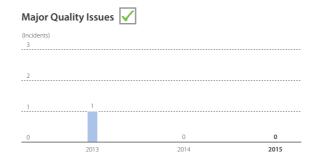
Calvert City Plant

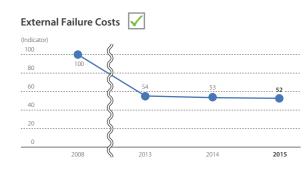
Sekisui Specialty Chemicals America, LLC.

Pasadena Plant Sekisui Specialty Chemicals America, LLC.

Dallas HQ

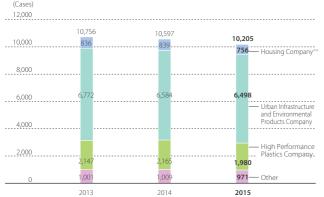
Sekisui Specialty Chemicals Europe, S.L. Tarragona Plant





 <sup>\*</sup> Categories of instructions for Headquarters environmental auditing: Issues of concern: Matters recommended for swift improvement Issues to work on: Matters recommended for planned improvement Proposals: Matters to be considered for improvement, advice

# Number of Telephone Calls Received from Customers\*

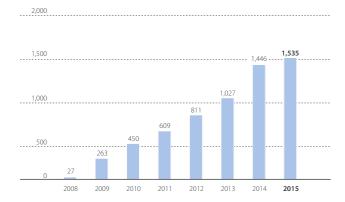




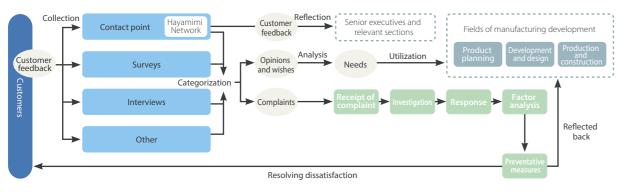
<sup>\*</sup> Calls received by Customer Information & Consulting Services.

\*\* Housing Company-related calls were received separately at dedicated points of contact for owners in each area.

### Telephone Service Training (total numbers of participants)



### Flow of Utilizing Customer Feedback in Management



## Human Resources P28-30 ✓

### **Medium-Term Plan Targets and Results**

[Fiscal 2015 Call Breakdown]

FY2015 10,205 cases

143 cases (1.4%)

Compliments20 cases (0.2%)

— Complaints 195 cases (1.9%)

Measure		Medium-Term Plan	FY2015 results	
		Goal(s) Main measure(s)		112013 163013
	Group	Including equity-method affiliates, domestic Group companies to hire 800 people	Strengthen the Sekisui brand in the employment market	Domestic Group hires: 678 people
Hiring	Global	Global hires (Sekisui Chemical non-consolidated): 20	Develop the market for new hires	Global hires (non-consolidated): 27
	Diversity	Hiring of women (30 women at Sekisui Chemical, 210 women at Group companies in Japan, including equity-method affiliates)	Enhance hiring seminars for women	Sekisui Chemical hired 33 women, 180 hired at Group companies in Japan
	Group	Internal job postings: 30 positions/year (Development of core HR based on experience)	Adopt a Group HR system and provide a broad range of experience	Internal job postings: 43/year
	Global	Global talent employees in the Sekisui Chemical Group in Japan: 400 (FY2016)	Enhance the Global Trainee Program and area-specific training measures	Global talent employees in the Sekisui Chemical Group in Japan: 329
Training	Diversity	Women in management positions (Sekisui Chemical non-consolidated): 50 (FY2016)	Link programs for training women leaders with the HR system as a whole	Women in management positions (32 women at Sekisui Chemical, 90 women at Group companies in Japan)
		Put temporary employees and senior employees to active use	Promote transfer to permanent, full-time status and revise the Senior Partners Program	8 part-time Sekisui Chemical employees turned into full-time employees Senior Partners Program revised October 2015

### **Basic Information**

### Breakdown of Number of Employees (Sekisui Chemical)

Number of employees		2,404
	Men	2,040
	Women	364

### Breakdown of Employee Numbers (the Sekisui Chemical Group)

Numl	ber of employees	23,901
By reg	gion	
	Japan	18,065
	North America, Central and South America	1,512
	Europe	1,048
Asia/Pacific (including China)		3,276

## Employees' Years of Continuous Service (Sekisui Chemical)

10 - 10 m

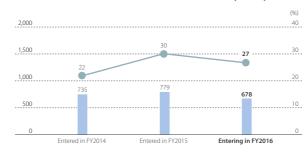
Average years of continuous service		16.7
	Men	17.2
	Women	14.0

### Employee Turnover Rate in First Three Years of Employment (Sekisui Chemical)

	Employed in FY2011	Employed in FY2012	Employed in FY2013
Employee turnover rate in first three years of employment (%)	8.6	5.7	10.7

### Hiring

### Number of New-Graduate Hires/Percentage of Women among New-Graduate Hires (the Sekisui Chemical Group in Japan)



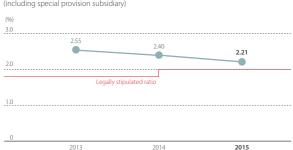
### Number of Elderly Employees Reemployed and Reemployment Rate (Sekisui Chemical)

	FY2013	FY2014	FY2015
Number of elderly employees reemployed	56	83	104
Reemployment rate (%)	87.5*	82.2*	82.5*

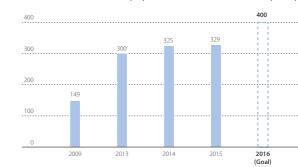
Note: The reemployment rate for applicants is 100%.

## Employment Ratio of People with Disabilities (Sekisui Chemical)

(including special provision subsidiary)



### Number of Global Talent Employees in the Sekisui Chemical Group in Japan



### **Human Resources**

### Number of Women Directors and Percentage of Management Positions Filled by Women

		FY2015
Directors	2	(the Sekisui Chemical Group)
Percentage of management positions (%)	2.4	(the Sekisui Chemical Group in Japan)

## **Results of Intra-Group Job Postings**

	FY2014	FY2015	Cumulative total since FY2000
Number of recruitment cases	53	43	341
Number of employees recruited	172	113	799
Number of applicants	144	89	1,552
Number of employees transferred	30	18	313

### Career Plan Training by Age

	30s	40s	50s	57	Total number of participants
Themes by age groups	Self- establishment	Market value	Continuing to work even after retirement	Preparedness and motivation	_
Training content	Recognition of abilities and interviews with superiors on career-related matters	Affirmation of specialization, values, and the meaning of work	Aiming to keep working at age 65 and thinking about succession	Putting into words desired styles for ages 60–69	_
Number of participants in FY2015	71	72	127	60	330
Cumulative total number of participants through FY2015	2,021	1,849	1,176	169	5,215

## Main Recruitment- and Selective-Type Training Programs

	Training	Details	Number of participants in FY2013	Number of participants in FY2014	Number of participants in FY2015
Recruitment- type training	The Saijuku School	This program combines intensive courses led by visiting university professors with practical tasks so that participants can improve their skills and knowledge to become globally oriented leaders. It is intended to develop the next generation of leaders.	36	35	34
Selective- type training	Open Seminar	These intra-group seminars aim to improve employees' business skills. Employees can select freely seminars on skills that meet their needs, to acquire skills that can be applied immediately to their daily work.	104	100	71

## **Work-Life Balance**

## Overtime Hours Worked (Sekisui Chemical)

			(1001)
	FY2013	FY2014	FY2015
Monthly average per person	16.0	16.8	18.7

Percentage of	Paid Leave	Used (Sek	isui Chemical)

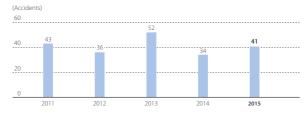
			(90)
	FY2013	FY2014	FY2015
Average per person (not including managers)	40.0	43.2	48.2

## Main Programs for Promoting Diverse Working Styles and Program Usage (Sekisui Chemical)

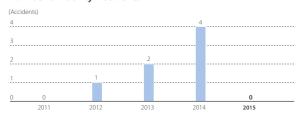
	System	Main Content	FY2013	FY2014	FY2015
Support	Childcare leave	Can be taken until the end of the month in which the child reaches three years of age. (The statutory end date is until the child reaches eighteen months of age.)	28 (including eight males)	31 (including nine males)	30 (including 12 males)
for	Shorter working hours	Can be extended until the child starts fourth grade. (The statu tory end date is, until the child reaches three years of age.)	23	26	30
childcare	Use of flexible working hours	Times of starting and finishing work may be moved earlier or later by up to 60 minutes until the child reaches junior high school age.	2	3	3
Other support	Family leave	Three days of special paid leave per year granted until the child or grandchild starts high school. (This leave can be taken for reasons such as childbirth-related events, parents' days, athletic meets, and PTA meetings.)	101 (including 35 males)	104 (including 59 males)	113 (including 73 males)
		Total number of system users	154	164	176

# Safety ₱31 ✓

### **Number of Occupational Accidents**



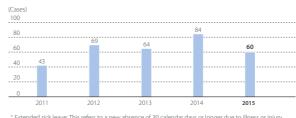
### Number of Facility Accidents\*



\* Facility accidents: Any accident that meets one or more of the following conditions (1) – (3) (Sekisui Chemical Group standards):

(1) Personnel-related injury: occupational accidents accompanied by 30 or more lost working days (2) Property damage: 10 million yen or more (3) Loss of opportunity: 20 million yen or more

### Number of Cases of Extended Sick Leave\*



Extended sick leave: This refers to a new absence of 30 calendar days or longer due to illness or injury. Reoccurrences within six months of returning to work are not included in the above count. Absences due to occupational accidents are not considered extended sick leave.

## Number of Commuting Accidents\*



Number of Cases: Total number of cases in which injury was suffered or damage caused (including injury to the person and property damage).

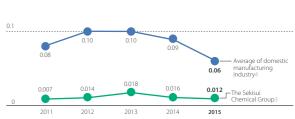
### Frequency Rate<sup>1</sup>





### Severity Rate<sup>2</sup>

0.2



2 Severity rate = (number of work days lost / total work hours) × 1,000
3 Seksui Chemical Group data: 47 production sites and four R&D laboratories
4 Source of information for Japanese manufacturing industry: Ministry of Health, Labour and Welfare Survey on Occupational Accidents

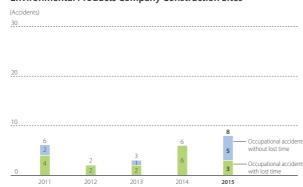
## Number of Occupational Accidents at Overseas Production Sites



### Safety Performance at Housing Company Construction Sites



### Safety Performance at Urban Infrastructure & Environmental Products Company Construction Sites

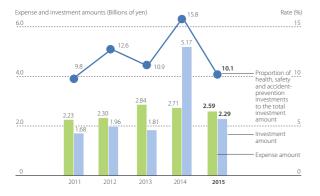


## Health, Safety and Accident-Prevention Costs

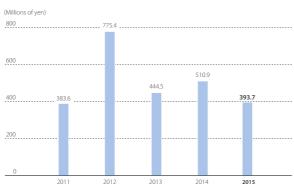
	ltem	The Sekisui Ch	nemical Group*
Classification	Details	Expense amount	Investment amount
1) Costs within business site areas	Health and safety measures, rescue and protective equipment, measurement of work environment, health management, workers' accident compensation insurance, etc.	843	2,293
2) Administrative costs	Establishment and implementation of OHSMS, safety education, personnel costs, etc.	1,742	<u> </u>
3) Other	Safety awards, etc.	4	<u> </u>
Total		2,589	2,293

 $^{_{17}}$  Data above include 47 production/four laboratories + all departments of Headquarters + back offices of division companies

### **Expenses and Investments**



### Loss Costs\*



\* Loss costs: Expenses, including man-hours, required to respond to occupational accidents, equipment-related accidents, commuting accidents, and long-term illness absences.

## **Compliance and Risk Management**



### FY2015 Whistle-Blowing Reports and Consultations

Reports/consultations	Number of cases
Power harassment	19
Working conditions	13
Sexual harassment	3
Misuse of expenses	2
Workplace environment	2
Improper accounting practices	2
Other	8
Total	49

### Trends in class participation (All Sekisui Chemical Group Employees)



Implemented on four sessions in fiscal 2015. However, as the third and fourth sessions are under way, the abovementioned figures are averages of the results from the first and second sessions.

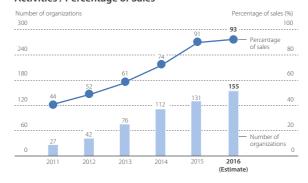
### FY2015 Compliance Training Courses Performed

Training	Training content	Trainees	Attendanc
Regular	Training for new employees	New employees of Sekisui Chemical and the Sekisui Chemical Group	547
Training	Training for new managers	New managers of Sekisui Chemical and the Sekisui Chemical Group	185
	Manager training	Sekisui Chemical Group companies	67
	Training for those responsible for management	Sekisui Chemical Group companies	16
Training	Newly appointed assistant managers	Sekisui Chemical and Group companies	152
for specific	Corporate auditor training	Sekisui Chemical Group companies	60
employee ranks	Affiliated company full-time directors	Sekisui Chemical Group companies	270
	Newly appointed senior management	Sekisui Chemical and Group companies	34
	Newly appointed operating officers	Sekisui Chemical	5
	Compliance training	Sekisui Chemical and Group companies	668
	Harassment prevention training	Sekisui Chemical and Group companies	284
	Promotion codes training	Sekisui Chemical Group companies	17
	My Number system briefing	Sekisui Chemical and Group companies	212
Area-specific	Mental health training	Sekisui Chemical and Group companies	759
training	Safe driving course	Sekisui Chemical Group companies	97
	Act against Delay in Payment of Subcontract Proceed, etc. to Subcontractors training	Sekisui Chemical and Group companies	117
	Accounting compliance training	Sekisui Chemical and Group companies	1,791

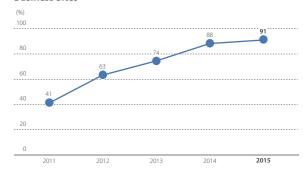
Training	Training content	Trainees	Attendance
	Foreign counterfeit product safeguards training	Sekisui Chemical	57
	Bribery prevention training	Sekisui Chemical	29
	Contract business training	Sekisui Chemical Group companies	22
	Training in Act against Unjustifiable Premiums and Misleading Representations	Sekisui Chemical and Group companies	104
	Fair competition regulations training	Sekisui Chemical Group companies	64
Area-specific training	Intra-company whistle- blowing system briefing	Sekisui Chemical Group companies	6
uug	Information management training	Sekisui Chemical Group companies	22
	Manufacturing division leader training	Sekisui Chemical Group companies	34
	Training for those in charge of purchasing equipment	Sekisui Chemical and Group companies	18
	Copyright Act training	Sekisui Chemical Group companies	15
	Antimonopoly Law training	Sekisui Chemical and Group companies	120
	Export controls training	Sekisui Chemical and Group companies	200
Global training	Electronic discovery	Sekisui Chemical Group companies (in North America)	11
	Foreign compliance training	Sekisui Chemical Group companies (overseas)	33
	Chinese compliance training	Sekisui Chemical Group companies (in China)	53
	Basic training for global personnel development	Employees engaged in work related to overseas business	6
Open seminars Legal affairs seminar		Sekisui Chemical and Sekisui Chemical Group companies	742

## Risk Management P35

# Number of Organizations Employing Risk Management Activities / Percentage of Sales



# Average Utilization Rate of Disaster Prevention Systems at Business Sites





## Examples of Main Environmental Contribution Activities Conducted in Fiscal 2015

	Site	Program
	Tohoku Sekisui Heim Industry Co., Ltd.	Japanese beech tree planting activities at Minamizaou
	Kanto Sekisui Heim Industry Co., Ltd.	Sekisui Children's Nature Study Course (observing water bugs and testing water quality)
	Tokyo Sekisui Heim Industry Co., Ltd.	Green Trust Kurohama Lake Environs Outing (nature field trip for children)
	Chubu Sekisui Heim Industry Co., Ltd.	Forest conservation activities for local children
	Kyushu Sekisui Heim Industry Co., Ltd.	Winter birdwatching with local children
	Sekisui Heim Tohoku Co., Ltd.	Growing oak tree seedlings with local children
	Tokyo Sekisui Heim Co., Ltd.	Woodland conservation activities at Tama Zoological Park
	Sekisui Heim Kinki Co., Ltd.	Woodland conservation activities at Kaseyama, Kizugawa, Kyoto Prefecture
	Sekisui Heim Kyusyu Corporation	Forest conservation activities, terraced rice fields in Tsuzura, Ukiha, Fukuoka Prefecture
	Chiba Sekisui Industry Co., Ltd.	Uruoi no Mori (Moist Forest) woodland development project
Activities of	Shikoku Sekisui Co., Ltd.	Non-native plant eradication activities along the Shinmachi River
business sites in Japan	Sekisui Medical Co., Ltd., Iwate Plant	Tree planting activities around Matsuo Kosan
	Sekisui Film Co., Ltd., Shinshu-Takato Plant	Tenryu river aquatic environment picnic (clean-up of Mibu river waterway)
	Sekisui Film Co., Ltd., Kyushu-Izumi Plant	Observation of waterside living organisms with local children
	Sekisui Seikei, Ltd., Hyogo-Takino Plant	Rice project and environmental survey in cooperation with local community
	Sekisui Seikei, Ltd., Izumo Plant	Izumo Children Nature School (living organism observation)
	Tokuyama Sekisui Industry Co., Ltd.	Sekisui no Mori forest maintenance activities
	Sekisui Chemical Co., Ltd., Shiga-Ritto Plant	Yurikago (Cradle) paddy field project
	Sekisui Chemical Co., Ltd., Gunma Plant	Gunma Children's Nature Class (building bird nesting boxes and environmental studies)
	Sekisui Chemical Co., Ltd., R&D Institute	Building of bird nesting boxes with local children
	Sekisui Chemical Co., Ltd., Tsukuba Site	Afforestation activities at the base of Mt. Tsukuba and in the Kasumigaura headspring
	Sekisui Chemical Co., Ltd., Tokyo Headquarters	Tree-planting activities at Umi-no-Mori (Sea Forest) in Tokyo
	Sekisui Polymer Innovations, LLC.	Energy conservation activities Park/beach clean-up activities (United States)
	Sekisui SPR Americas, LLC.	Tree Atlanta afforestation activities Clean-up activities around plants and offices (United States)
	Sekisui Specialty Chemicals Europe, S.L.	Afforestation activities Birdhouse building (Spain)
	Sekisui Diagnostics (UK) Ltd.	Park clean-up activities Event promoting sustainable food (UK)
	Sekisui (Dalian) Housing Technology Co., Ltd.	Park beautification activities (China)
Activities of overseas business sites	Sekisui S-LEC (Suzhou) Co., Ltd. Sekisui (Shanghai) International Trading Co., Ltd. Sekisui (Medical Technology (Suzhou) Ltd. Sekisui (Shanghai) Environmental Technology Co., Ltd. Sekisui (Wuxi) Plastics Technology Co., Ltd. Sekisui (Mr. (Hebe) Environmental Technology Co., Ltd. YoungBo HPP (Langfang) Co., Ltd.	Tree planting in Yupingshan, Suzhou (China)
	Sekisui Vietnam Pipe Solution Co., Ltd.	Lake clean-up activities around Hoam Kiem (Vietnam)
	Sekisui Industrial Piping Co., Ltd.	Eco-drive Wuqi Citizens' Elementary School clean-up activities (Taiwan)
	S and L Specialty Polymers Co., Ltd.	Afforestation activities Environmental tuition for elementary schools Clean-up activities on beaches close to business site (Thailand)
	Sekisui-SCG Industry Co., Ltd.	Clean-up activities in area around plant (Thailand)
	Sekisui Pilon Pty. Ltd.	Clean-up activities in Woolooware bay mangrove conservation forest (Australia)

### Main Social Contribution Activities Conducted in Fiscal 2015

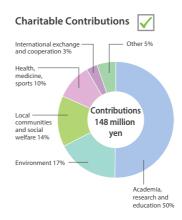
Program	2015 Performance			Performance to Date				
Heart+Action	Times implemented	Nine times	Participants	159 persons	Cumulative number of times implemented	36 times	Cumulative participants	643 persons
TABLE FOR TWO	Sites	12 sites meals provi	Number of school	d in 27,383 meals	Implementing sites	12 sites	Number of school meals provided in developing countries	126,512 meals
			developing countries				Amount of food aid to the Tohoku region*	649,910 yen
TABLE FOR TWO vending machines	Sites	One site	Number of school meals provided in developing countries	5,835 meals	Implementing sites	One site	Number of school meals provided in developing countries	8,725 meals
Houses and the Environment Learning Program	Implementing schools	13 schools	Participating students	1,405 persons	Cumulative number of implementing schools	110 schools	Cumulative number of participating students	Approx. 13,700 persons
Chemical Classroom	Times implemented	30 times	Participating students	3,275 persons	Cumulative number of times implemented	170 times	Cumulative number of participating students	20,208 persons
BOOK MAGIC	Times implemented	Nine times	Amount donated	100,437 yen	Cumulative number of times implemented	96 times	Cumulative amount donated	810,344 yen

<sup>\*</sup> Food assistance to the Tohoku region from April 2013 to December 2014

### Recipients of Fiscal 2015 Sekisui Chemical Grants for Research on Manufacturing Based on Innovations Inspired by Nature

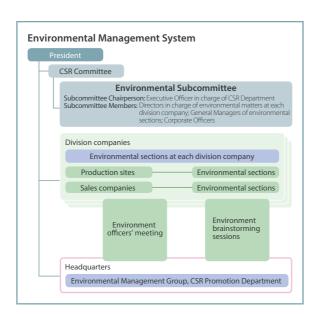
Researcher Affiliation/University, Title*		Affiliation/University, Title*	Supported Research Theme		
Satoru KAWASAKI Pirofessor Division of Sustainable Resources Engineering, Faculty of Engineering, Hokkaido University			Development of land restoration and conservation technologies learnt from beachrock		
Hiroyuki SUGIMOTO  Associate professor Department of Forest Resources Faculty of Agriculture, Ehime University			Development of the wood materials with optical transparency at arbitrary region		
Tsu	yoshi SEKITANI	Professor The Institute of Scientific and Industrial Research, Osaka University	Development of the high sensitivity feel of a material sensor sheet to learn from the skin of the person		
Та	keshi ZENDO	Assistant Professor Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University	Establishment of modification and creation methods for antimicrobial peptides based on the survival strategy of lactic acid bacteria		
Mas	ahiko HAYASHI	Professor Graduate School of Science, Kobe University	Development of environmentally benign oxidation process using activated carbon as a catalyst and air as an oxidant		
Yo	shito TANAKA	Assistant Professor Institute of Industrial Science, the University of Tokyoy	Motor-protein mimetic technology of driving and manipulating nanoscale machine by light		
Kiy	osei TAKASU	Professor Graduate School of Pharmaceutical Sciences, Kyoto University	Design and Synthesis of Stimulus-Responsible Movable Molecular Assemblies		
Ker	ntaro TANAKA	Professor Department of Chemistry, Graduate School of Science, Nagoya University	Nanospaces in Flowable Media: Columnar Liquid-Crystalline Macrocycles		
Ma	akoto OSANAI	Associate Professor Tohoku University Graduate School of Medicine	Development of the ultrafine fluorescence endoscope inspired by the biotic visual system		
No	orio SHIBATA	Professor Department of Nanopharmaceutical Sciences, Nagoya Institute of Technology	Synthesis of antifreeze molecules inspired by Antarctic fish toward anti-ageing		
Gaku	hito HIRASAWA	Associate Professor Chiba University Graduate School of Engineering	Building structural design technique simulating biotensegrity		
Shul	nei KUSUMOTO	Assistant professor Department of Chemistry and Biotechnology, Graduate School of Engineering, The University of Tokyo	Selective Transformation of Woody BiomassNew Technology for the Sustainable Society-		
Kazu	ınori SUGIYASU	Senior Researcher National Institute for Materials Science	Programming of Time-Dependent Evolution of Supramolecular Assembly through Learning the Process of Amyloid Fibril Formation		
Mas	anori SHIGENO	Assistant Professor Graduate School of Pharmaceutical Sciences, Tohoku University	Development of memory molecules and materials which respond to temperature change		
F	Akira SATOH	Associate Professor Research Core for Interdisciplinary Sciences	Organ regeneration mechanisms in urodele amphibians		
Cross	Kazuya SAITO	Assistant Professor The University of Tokyo, Institute of Industrial Sciences	Self-Assembling Smart Structures Learning from The Twining-Pattern Variations in Bush Killers		
Cross-sector collaborative research	Yuya FUKANO	JSPS Research Fellow Tokyo University of Agriculture and Technology			

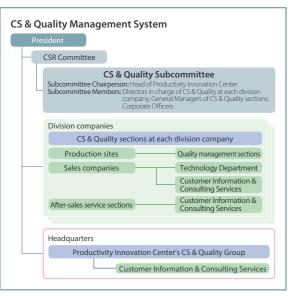
<sup>\*</sup> Affiliations, universities, and titles shown are current as of the time the grant was provided.

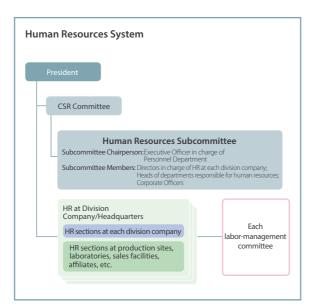


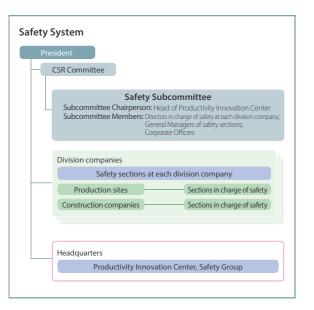
# Sekisui Chemical Group's CSR Management System

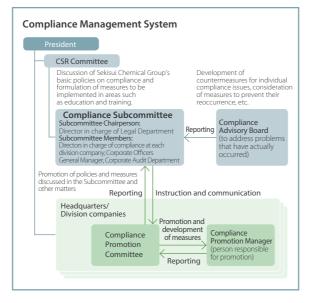












## Sekisui Chemical Group's CSR Management Policies

### **Sekisui Chemical Group Environmental Management Policy**

### Mission

We, Sekisui Chemical Group, aim to be a Global Environmental Top Runner that contributes to the realization of a sustainable society by enabling the continuous growth and co-existence of ecology and the economy.

### **Basic Policy**

Each company in Sekisui Chemical Group advances approaches that contribute to the prevention of global warming, the preservation of biological diversity and the construction of a recycling-based society in all countries and regions where they have operations, in order to leave this beautiful Earth for our children in the future.

- 1. We contribute to the environment through our products and services, with consideration given to the environment at all stages of the product life cycle, from research to procurement, production, sales, use, and disposal as waste.
- 2. We carry out environmentally conscious business activities in all our workplaces and offices, and promote our approach to the environment through cooperation with our customers and business partners.
- 3. We make efforts to reduce the environmental impact of greenhouse gas emissions and hazardous chemicals, etc., and to prevent pollution by promoting the effective use of limited resources and energy.
- 4. We observe the relevant laws, regulations, international rules, etc.
- 5. We make efforts to improve environmental consciousness through education and advance continual improvements by setting our own objectives and targets.
- 6. We enhance trust through close communications with society.
- 7. We actively engage in social contribution activities such as nature conservation activities in each region.

### **Sekisui Chemical Group CS & Quality Management Policy**

### Mission

We, Sekisui Chemical Group, consider CS & Quality as our central concept of management and will consistently innovate to maintain the quality of products throughout all our activities, continuously provide value (products and services) that meet customer expectations, strive for selection by our customers on an ongoing basis, and develop and grow with the customer over the long term.

### Basic Policy

We, Sekisui Chemical Group, consider Customer Feedback as a precious resource for management and strive to innovate with regard to the Quality of Products, Quality of People and Quality of Systems based on the motto "We consider customer's feedback as the beginning of our manufacturing." Furthermore, we contribute to the realization of a safe and affluent society by continuously providing our customers and their communities with new value.

### Ensuring Basic Qualities

To ensure the reliability and safety of our manufactured products, which form the basis of Product Quality, we effectively leverage customer feedback and dedicate ourselves with a strong belief in forestalling any potential trouble and preventing any future recurrence throughout our entire value chain.

### 2. Creating Attractive Qualities

We aim to share the emotional values of our customers by thoroughly pursuing "what the customers value" and constantly creating attractive products and services that should realize such customer values.

### 3. Upgrading Technological Capabilities

For the sake of ensuring Basic Qualities and for creating Attractive Qualities, we are upgrading our technological capabilities in all fields in order to achieve superb manufacturing development.

### 4. Enhancing Communications

We value communication with our customers and the society and make sincere efforts when dealing with them as well as complying with the relevant laws and regulations in each country and region. We place special emphasis on resolving customer complaints or claims at an early stage by responding promptly and empathetically.

### 5. Providing Thorough Employee Education

To gain and maintain the full trust of and leave a lasting impression on our customers, we provide employees with continuous CS & Quality education and motivate them to achieve self-realization through customer satisfaction.

### Sekisui Chemical Group Human Resources and Human Rights Policy

### Mission

Based on our belief that "employees are precious assets bestowed on us by society," we, Sekisui Chemical Group, are committed to developing an environment where employees can work enthusiastically. We also offer various opportunities through which we help individual employees enhance their specialties and grow as individuals.

With the recognition that it is our social responsibility to protect individual human rights, we respect the diversity, personality and individuality of each person, promote various working styles and create safe and secure work environments in response to the conditions in each country and region.

### **Basic Policy on Human Resources**

### 1. Creating opportunities to take on challenges We encourage employees to "positively set their own goals and aggressively to take on challenges."

- 2. Culture where employees learn and grow on their own We strive to enrich our education/training programs and develop a culture where employees learn and grow on their own.
- 3. Enhancement of the performance-based remuneration system We emphasize our employees' personal commitment and strive to constantly improve the fairness and acceptance of our assessment system regarding performance and processes.
- 4. Acceptance of various working styles

We respect various values, develop workplaces where every employee can work with enthusiasm, and help employees achieve a balance between life and work.

5. Creating safe and secure work environments

We promote employees' health enhancement and mental health care.

### **Basic Policy on Human Rights**

### 1. Respect for human rights and the prohibition of discrimination Being aware of our position as a member of the international community, we appreciate and respect the cultures, customs, and values of each region and neither violate human rights ourselves nor participate in any such violations. We also never become involved in

any conduct that might lead to discrimination.

We never discriminate on the grounds of race, color, gender, age, language, religion, creed, disability, sexual orientation, nationality, geographical or social origin, property, or other status or any similar basis, and we neither violate human rights ourselves nor participate in any such violations.

### 2. Prohibition of harassment

We never commit sexual harassment or other actions that stain personal character.

- 1) We do not commit sexual harassment or any conduct that might be misunderstood as sexual harassment.
- 2) We do not misuse the power of a superior position nor use any language or conduct that could sexually annoy any person. In addition, we prevent other employees from using such offensive language or conduct.

### 3. Prohibition of forced labor and child labor

We shall never accept forced labor or child labor in any country or

- 1) We comply with the laws for the minimum working age in each country and region and do not use child labor
- 2) We do not carry out any form of forced labor in any of our corporate

### 4. Respect for basic labor rights

We respect basic labor rights, including the right of workers to organize and to bargain, in accordance with the laws and customs of each country or region, and do not infringe on these rights.

### **Sekisui Chemical Group Diversity Management Policy**

Based on the realization that diversity is essential to becoming a sustainable company that can maintain its strong corporate value for a century, we understand and recognize that each and every employee's orientation to work and life and their distinctive characteristics are different and thus we actively take advantage of that. To create an organizational culture, we will continue, through employee dialogue, to provide employment and participation opportunities and a variety of environmental improvements that support growth.

### **Sekisui Chemical Group Safety Policy**

We, Sekisui Chemical Group, recognize that employee safety is essential to achieving sustainable growth. We aim to be a "Safe and Secure" enterprise that establishes safe and secure work environments and has the full trust of its customers and the community as well as its employees.

Based on the concept of human dignity that "everyone is invaluable," we "prioritize safety over anything else" as a basic rule in all of our business activities from development, production, construction to servicing. We are committed to promoting comprehensive safety activities with the aim of achieving zero occupational accidents, facility accidents, commuting accidents or long-term sick leave.

- 1. We strive to develop a safe and comfortable workplace where everyone is taken care of both mentally and physically, which should lead to good health for each of our employees, whom we highly value.
- 2. We thoroughly disseminate the legal requirements concerning health and safety/disaster prevention to our employees to ensure compliance.
- 3. We carry out risk assessment and promote risk reduction measures in a systematic way to eliminate hazardous factors that compromise health and safety/disaster prevention.
- 4. We strive to raise awareness regarding health and safety/disaster prevention through employee education/training and promote continuous improvements by setting voluntary objectives/goals.
- 5. We proactively disclose any necessary information as well as gain a higher level of trust by having close communication with public administrations and local communities

### **Sekisui Chemical Group Social Contribution Policy**

As a good corporate citizen, we, Sekisui Chemical Group, engage in activities that focus on the environment, the next generation and local communities, while contributing not only to business activities but also to society.

All employees working for the Sekisui Chemical Group are proactively involved in society and act so that they can serve as prominent human resources in society as well. In addition, their activities are supported by each company of the Group in order to generate synergistic effects.

### **Sekisui Chemical Group Procurement Policy**

Sekisui Chemical Group will perform its procurement of goods according to the five basic ideas set out below.

We will strengthen our harmonious and mutually beneficial partnership with our business partners through fair transactions. Also, Sekisui Chemical Group will engage in the promotion of CSR activities through the cooperation of business partners in the Group's procurement activities.

### 1-1. Procurement Policy

### Openness

Sekisui Chemical Group opens its doors not only to domestic companies but also widely to overseas companies.

### Impartiality and Fairness

Sekisui Chemical Group selects business partners based on impartial and fair evaluation standards with emphasis on quality, price and delivery lead-time.

### Compliance with Laws and Regulations

When engaging in purchasing transactions, Sekisui Chemical Group will comply with relevant laws, regulations and administrative instructions in Japan and overseas.

### Mutual Trust

Along with conducting transactions with mutual trust and in fulfillment of contractual obligations, we will build and maintain relationships with our business partners that allow for our mutual profitability.

## **Environmental Considerations**

Sekisui Chemical Group will further promote the purchase of raw materials and goods that have minimal negative impact on the environment and strive to establish a resource-recycling society through concerted efforts with business partners.

### 1-2. A Request to Our Business Partners Concerning Procurement

The company is aware of CSR in all spheres of its business operations based on its philosophy of contributing to society through its business activities. To do so, it is absolutely necessary to engage in activities in mutual cooperation with business partners. We ask all business partners to carry out the following activities proactively

## (1) Securing Excellent Product Quality

Establish a quality assurance system to improve and maintain the quality of products offered to customers

• Establish a quality assurance system in conformity with ISO 9000

### (2) Environmental Considerations

Sekisui Chemical Group is working to reduce any negative impact its products may have the environment from the development and production stages to disposal. To do so, the environmental consideration of our suppliers concerning raw materials and goods is essential.

- Environmental management system in conformity with ISO 14001
- Reduction of harmful chemical substances, etc.; procurement of goods and materials with minimal environmental impact

### (3) Compliance with Laws, Regulations, and Social Customs

Suppliers are requested to ensure compliance with relevant laws, regulations and appropriate social norms of the countries and regions in which they conduct business operations.

- Compliance with relevant laws and regulations in the business operations
- Prohibition of forced labor
- Prohibition of child labor
- Prohibition of discrimination toward employees

### (4) Safety and Hygiene

Quality is built through human resources and facilities. The safety management of these resources is the basis of production. Business partners are requested to perform the following.

- · Safety and hygiene control of the workplace and maintenance of employee health
- Machine safeguarding and safety and hygiene control of facilities
- Appropriate response to occupational accidents, facility disasters, accidents, etc.

# Calculation Standards of Key Performance Indicators

Items	Indicator		Calculation Method	
		Calculation of amounts of nature. Our calculations use LIME2, Ja Of the four safeguard subjects human health from global wa a single index. The amount of return of the n efforts to contribute to the en • Items included in calculation o	panese life-cycle impact assessment method developed by Professor Norihiro Itsubo at Tokyo City University.  covered by LIME2, we selected three safeguard subjects (primary production, biodiversity, and damage to rming) that are regarded as having a direct relationship with the natural capital in our calculations and creater atural capital is calculated as the reduction in risk of damages to the natural capital that results from Groupwic vironment, compared to if no actions were taken.	
		Indirect use: Procured raw materials, energy used, water used, waste generated, indirect GHG emissions (Scope 3) from supply chain  Items included in calculation of the natural capital returned Contribution from of Environment-Contributing Products to reductions in use of the natural capital, contributions from environmental preservation activities, environment-related donations, electricity generated at megasolar power plants		
		Scope of calculation / breakdown of components. The following assumptions are used in the calculations.  Raw materials: Estimates of procured raw materials		
		For housing, breakdown of raw materials used per housing unit multiplied by a total number of housing unit built(not including apartments)  • Production / emission of harmful chemical substances. (Japan) PRTR substances in excess of one ton of emissions / year;		
		(Overseas) Not included  Production / land maintenance: Land used for buildings include the entire site area of plants and laboratories in Japan; estimates of site areas for overseas plants. Impact of land usage measured for 30 years after land purchase		
Environment Efficiency	SEKISUI Environmental Sustainability Index	employees, commutes t Business trips and empl Use of products sold: Cc Processing of products s large usages of energy	chain, other combustibles and energy-related activities, transportation and distribution, waste, business trips, o work, lease assets (downstream), processing, use and disposal of products sold syee work commutes: Covers consolidated employees, including some estimates wers houses sold during the fiscal year, based on estimates of energy usage over 60 years sold: includes estimates of energy used during processing at customer locations of products likely to consume d: Covers main raw materials during the fiscal year, based on estimates of products being disposed during	
		*Product contributions: (1) A qualitative assessment is performed to evaluate the differences in environmental contribution between target products and previous technologies in terms of six categories (CO <sub>2</sub> and energy reduction, waste reduction, resource conservation, waster conservation and recycling, pollution prevention, and direct preservation of biodiversity) by stage of product's lifecycle (five stages from raw materials procurement, production, product distribution, product use and maintenance, and product disposal and recycling). Any significant difference identified is further investigated using the data by product unit. (2) Based on the investigation results obtained, the environmental contribution by product unit is calculated using environmental load coefficient multiples applicable for each data. (3) The environmental contribution by product is determined by multiplying the result in (2) by total units sold for the fiscal year. The effect of Environment-Contribution products is calculated on a trial basis for approximately 44% of their sales.		
		<ul> <li>Direct contribution / preservation of the natural environment: The total number of participants and the time they spent in preservation activities is multipled by the quantity of CO<sub>2</sub> Japanese ceder trees would absorb if planted.(1.1 tons-CO<sub>2</sub> / man hours)</li> </ul>		
		Direct contribution / donations: Donations made with the intent of environmental preservation are assumed at an amount equivalent to the amount of environmental damages.		
		Direct contribution / megasolar power plants: Electricity generated is converted into CO <sub>2</sub> equivalent as total energy created		
Environment- Contributing Products	Environment- Contributing Products Sales and Sales Ratio	Sales of Environment-Contributing Products = Sekisui Chemical Group consolidated net sales of products certified internally as Environment-Contributing Products Environment-Contributing Products sales ratio = Sales of Environment-Contributing Products/consolidated net sales Subject: All Group businesses in Japan and overseas		
	Greenhouse Gas (GHG) Emissions	consumption sources GHG emissions from non-energy global warming coefficients]	el usage purchased electricity and steam $\times$ CO <sub>2</sub> emission coefficient] + GHG emissions from non-energy consumption sources = CO <sub>2</sub> emissions from non-energy consumption sources* + $\Sigma$ [non-CO <sub>2</sub> GHG emissions then than the burning of fuels on the basis, both inside and outside Japan, of the Act on Promotion of Global Warming Countermeasure	
		Fuels: Heavy oil A 2.71 tons- CO <sub>2</sub> /kL, city gas 2.08 tons-CO <sub>2</sub> /thousand Nm³, LNG 2.70 tons- CO <sub>2</sub> /ton, heating oil 2.49 tons-CO <sub>2</sub> /kL, diesel oil 2.62 tons- CO <sub>2</sub> /kL, gasoline 2.32 tons- CO <sub>2</sub> /kL, LPG 3.00 tons- CO <sub>2</sub> /ton Purchased electricity. C555 tons-CO <sub>2</sub> /kMh (Japan)  Emission coefficient of each country and region announced by GHG protocols (overseas)  Purchased steam: 0.179 tons- CO <sub>2</sub> /ton  [Global-wamming coefficients]: Coefficients established under greenhouse-gas emissions calculation, reporting, and publication systems		
	Energy Usage	Energy usage = $\Sigma$ [volume of fuel	usage purchased electricity and steam × heat generated per unit of output]	
	CO <sub>2</sub> Emissions at the Transportation Stage	Aggregating the results of both the fuel-based method (for transportation of modular home units, etc.) and the ton-kilometer-based method (for transportation of products other than modular home units, etc.) and the ton-kilometer-based method (for transportation of products other than modular home units, etc.) and the ton-kilometer-based method (for transportation of products other than modular home units, etc.) and the consistence (km) $\times$ fuel usage per unit of output $\times$ CO <sub>2</sub> emission coefficient] Figures used for fuel usage per unit of output are those employed in the reporting system for specified consigners under the Act on the Rational Use of Energy		
Energy and Greenhouse Gases*	Greenhouse Gas (GHG) Emissions from Supply Chain	Subject: domestic logistics (produ Purchased goods and services	CO <sub>2</sub> emissions = $\Sigma$ [amount of main raw materials used listed in material balance section on page 8 of this Data Book x emission coefficient (IDEA v.1.1 (greenhouse gas emissions database compiled by the National Institute of Advanced Industrial Science and the Technology (AIST) and Japan Environmental Management Association for Industry (JEMA1)))]	
		Capital goods	CO <sub>2</sub> emissions = $\Sigma$ (year-on-year increase in buildings, structures, equipment and vehicles x emissions coefficient (per unit emissions database (v.2.0, Ministry of the Environment (MOE), Ministry of the Economy, Trade and Industry) (METI) used to calculate greenhouse gas emissions of organization throughout supply chain)]	
		Fuel- and energy-related activities not Included in Scope 1 and 2	CO2 emissions = $\Sigma$ [(volume of fuel usage electricity and steam purchased) $\times$ emission coefficient] Emission coefficients used are from IDEA v.1.1 (GHG emissions database from AIST and JEMAI) for fuel, and the Emissions per Unit Database for the Purpose of Calculating the Greenhouse Gas and Other Emissions of Organizations throughout the Supply Chain (Ver. 2.0) (MOE and MEII) for electricity and steam purchased. Subject: domestic and overseas production sites and laboratories, domestic and overseas offices	
		Transportation and delivery (upstream)	CO2 emissions = $\Sigma$ [amount (weight) of key raw materials used listed in material balance section on page 8 of this Data Book x distance traveled x emissions coefficient (IDEA v.1.1 (greenhouse gas emissions database compiled balance traveled Mas 200 km	
		Waste generated in operations	CO2 emissions = $\Sigma$ [volume of waste generated (by type) $\times$ emission coefficient (IDEA v.1.1 [GHG emissions database from AIST and JEMAI])] Subject: domestic and overseas production sites and laboratories	
		Business travel	CO <sub>2</sub> emissions = $\Sigma$ [transportation costs by means of transportation × emission coefficient (Emissions per Unit Database for the Purpose of Calculating the Greenhouse Gas and Other Emissions of Organizations throughou	

<sup>\*</sup> Calculation of greenhouse gases influenced by inherent unknowns in incomplete scientific knowledge used to determine emissions coefficients and numerical data required to find total emissions of various gases.

		T				
Items	Indicator	Calculation Method				
		Employee commuting	CO $_2$ emissions = $\Sigma$ [amount of commuting allowances paid $\times$ emission coefficient (Emissions per Unit Database for the Purpose of Calculating the Greenhouse Gas and Other Emissions of Organizations throughout the Supply Chain [Ver. 2.0] [MOE and METI]]) (Calculated by assuming all employees travel by passenger rail; commuting costs for Group companies include estimates.) Subject: domestic and overseas Group companies			
		Transportation and delivery (downstream)	Aggregating the results of using both the fuel-based method (for transportation of modular home units, etc.) and the ton-kilometer-based method (for transportation of products other than modular home units, etc.) CO: emissions = $\Sigma$ [volume of fuel usage $\times$ CO: emission coefficient] + $\Sigma$ [transport weight (tons) $\times$ transport distance (km) $\times$ fuel usage per unit of output $\times$ CO: emission coefficient (using figures employed in the reporting system for specified consigners under the Act on the Rational Use of Energy)] (Figures for overseas are estimates.)  Subject: shipments of products of domestic and overseas Group companies			
Energy and Greenhouse Gases	Greenhouse Gas (GHG) Emissions from Supply	Processing of sold products	CO2 emissions = $\Sigma$ [production volume of subject products × emission coefficient for processing of the subject products (IDEA v.1.1 [GHG emissions database from AIST and JEMAI])] Subject: automotive products of domestic and overseas Group companies			
(GHG)	Chain	Use of sold products	CO2 emissions = $\Sigma$ [number of homes sold during the fiscal year $\times$ annual volume of electricity purchased from power companies $\times$ 60 years $\times$ emission coefficient for electricity], reflecting the effects of photovoltaic (PV) systems. Figures used for annual volume of electricity purchased from power companies are from Sekisui Chemical press release (Survey of net energy balance (volume) of homes installed with PV systems (2013)". dated March 13, 2014). For the emission coefficient for electricity, the internally used figure of 0.555 tons-CO2/MWh is used. Calculations assume a useful life of 60 years for homes.)			
		End-of-life treatment of sold products	CO2 emissions = $\Sigma$ [volume of main raw materials used in products sold during the fiscal year $\times$ emission coefficient (IDEA v.1.1 [GHG emissions database from AIST and JEMAI])] Calculations assume products sold during the fiscal year were disposed of during the same fiscal year			
		Leased assets (downstream)	Calculated for construction works where machinery leased by Sekisui Chemical is used. $CO_2$ emissions = $\Sigma$ [units of relevant work $\times$ emission coefficient (IDEA v.1.1 [GHG emissions database from AIST and JEMAI])]			
	Waste Generated	incineration, not including the fo Waste from demolition of forme	Waste = outsourced disposals + recycling resources (use of incineration heat + materials recycling + valuable materials sold) + on-site incineration, not including the following: Waste from demolition of former homes of customers, scrap construction materials from construction at business sites, disposal of equipment, office automation appliances, etc., infectious waste generated from medical treatment and activities			
Waste	Waste Generated by New House Construction	Waste generated by new house construction = waste generated by housing exterior wall plants + waste generated by housing assembly plants + waste generated at new house construction sites Waste generated by new house construction per unit = waste generated by new house construction / units of houses sold Subject: domestic housing business				
	Number of Business Sites with Zero Emissions	Number of business sites that achieved zero emissions during the fiscal year				
	Amount of Water Extracted	Amount of water extracted = tap water volume + industrial water volume + on site groundwater intake volume				
	NOx Emissions Volume	Emissions volume = $\Sigma$ (annual exhaust gas air volume × NOx concentration × 46 / 22.4)				
Water, Air, Water Quality	SOx Emissions Volume	Emissions volume = $\Sigma$ (annual SOx volume × 64/22.4)				
	Soot and Dust Emissions Volume	Emissions volume = Σ (annual exhaust gas air volume × soot/dust concentration)				
	COD Discharge Volume	Volume discharged = $\Sigma$ [COD concentration (annual average of measured values) $\times$ volume of discharged water				
	Volume of Chemical Substances Handled	Volume of handled substances subject to the PRTR Law Subject: Domestic production sites and laboratories				
Chemical Substances	Volume of Chemical Substances Discharged and Transported	Volume of discharged and transported substances subject to the PRTR Law Volume discharged = volume discharged into the atmosphere + volume discharged into public waters + volume discharged into soil on site + on site landfill volume Volume transported = volume transported into sewers + volume transported as waste Subject: domestic production sites and laboratories				
Substances	Volume of Chemical Substances Detoxified	Volume of detoxified substances subject to the PRTR Law Volume detoxified = volume consumed through chemical reaction + volume consumed through incineration, etc. Subject: domestic production sites and laboratories				
	VOC Emissions	Volume of atmospheric discharge of volatile organic compounds (VOCs) included among substances subject to the PRTR Law and PRTR substances subject to the Japan Chemical Industry Association (JCIA)				
	Number of EMS- Certified Business Sites	Number of business sites that ac EMS external certifications: ISO 1	quired EMS external certifications during the fiscal year 4001, Eco Action 21, etc.			
	Percentage of Employees of Business Sites That Have Attained External EMS- Certification to All Sekisui Chemical Group Employees	Percentage of employees of business sites that have attained external EMS certification to all Sekisui Chemical Group employees = $\Sigma$ [number of employees of business sites that have attained external EMS certification] / consolidated total number of employees Number of employees at end of fiscal year				
Management, etc.	JBIB Land Use Score Card® Points	The JBIB Land Use Score Card® is a tool promoted by Japan Business Initiative for Biodiversity (JBIB)® to measure the level of contributions to biodiversity on company-owned land. Each business site is scored (up to 100 points) on the size and quality of green areas, their management systems and other factors.  In the fiscal year under review, each business site was assessed using the JBIB Land Use Score Card®, and the increase in points compared with fiscal 2013 is calculated. The average increase in points for all business sites is used as an index.				
	Ratio of Participants in SEKISUI Environment Week	Total number of participants in SEKISUI Environment Week / Number of employees at applicable business sites x 100				
	Environmental Accounting	Environmental accounting calculations are performed by referring to the Environmental Accounting Guidelines 2005 issued by the MOE, with the addition of Sekisui Chemical Group's own concepts such as external economic benefits (estimated effects). The scope of our procedures consisted of 45 production sites, five laboratories, 14 housing sales companies, headquarters departments, an back offices of division companies, all located in Japan.  External economic benefits included in the economic benefits of environmental conservation measures represent the energy conservation benefits from homes sold and installed with PV systems and the benefits of the No-Dig pipe rehabilitation method for sewers, etc., converted into monetary values.				

## CS & Quality

Items	Indicator	Calculation Method
CS & Quality Performance	External Failure Costs	Costs of responding to product-related claims
	Major Quality Issues	These refer to product and service quality issues determined by the Division Company president, based on evaluations and judgments by the quality assurance manager, which could cause significant damage to customers, society, or Sekisui Chemical Group and lead to the loss of society strust in the Group if not thoroughly resolved on an urgent basis including:  1) Problems that could have a serious impact on (or cause severe damage to) society, such as product recalls  2) All serious problems involving human safety and those acknowledged by the Division Company to be serious problems involving the safety of property  3) Compliance-related problems concerning the quality of products or services (e.g., those involving compliance with relevant laws and regulations)  4) Problems that could inflict serious financial damage on customers
	Number of Telephone Calls Received	Number of inquiries by telephone, e-mail, letter, fax, etc.

## **Human Resources**

Indicator	Calculation Method
Employee Turnover Rate in First Three Years of Employment	Employee turnover rate in first three years of employment for each fiscal year
Global Talents	Japanese employees with experience working overseas (including overseas trainees)
International Hiring	Hiring of human resources meeting one of the following criteria: those of non-Japanese nationality, returnee students from abroad, those with at least one year's experience studying abroad, and those with TOEIC scores of 750 or higher
Employment Ratio of People with Disabilities	(Number of regular workers with disabilities / total number of regular workers) × 100
Percentage of Management Positions Filled by Women	(Number of women in management positions / total number of personnel in management positions) × 100
Reemployment Rate for the Elderly	(Number reemployed / total number of employees retired at mandatory retirement age) × 100 Note: The number of employees retired at mandatory retirement age includes some retirees who do not desire reemployment.
Overtime Hours Worked	(Total overtime hours worked + total time worked on weekends and holidays) / number of employees
Percentage of Paid Leave Used	(Days of leave taken/days of leave awarded) $\times$ 100

## Safety

Items	Indicator	Calculation Method		
	Number of Occupational Accidents	Number of occupational accidents (both those with lost time and those without lost time) at production sites and laboratories in Japan during the subject fiscal year (April through March)		
	Number of Facility Accidents	Number of equipment-related downtime events (such as fires or leakages) meeting one or more of the following conditions (1) – (3) (Sekisui Chemical Group standards) at production sites and laboratories in Japan during the subject fiscal year (April through March):  (1) Personnel-related damage: Occupational accidents with 30 lost working days or more (2) Property damage: 10 million yen or more (3) Loss of opportunity: 20 million yen or more		
	Number of Cases of Extended Sick Leave	Number of absence cases of 30 days or longer due to injury or illness at production sites and laboratories in Japan during the subject fiscal year (April through March).  Absences due to occupational accidents are not considered extended sick leave.		
Safety Performance	Number of Commuting Accidents	Number of commuting accidents for employees at production sites and laboratories in Japan during the subject fiscal year (April through March).  These include cases in which injury was suffered or damage caused (including injury to the person and property damage) while driving automobiles or other vehicles.		
	Frequency Rate	Number of injuries, illness and fatalities in occupational accidents with lost time per 1,000,000 total working hours during the subject fiscal year (April through March) Formula: Number of injuries, illness and fatalities in occupational accidents with lost time/total work hours × 1,000,000		
	Severity Rate	Number of workdays lost per 1,000 total working hours during the subject fiscal year (April through March) Formula: Number of work days lost / total work hours × 1,000		
	Number Occupational Accidents at Overseas Production Sites	Number of occupational accidents (both those with lost time and those without lost time) at overseas production sites during the subject fiscal year (April through March)		
	Safety Performance at Housing Company Construction Sites	Number of occupational accidents (both those with lost time and those without lost time) at construction sites under the supervision of the Housing Company during the subject fiscal year (April through March)		
	Safety Performance at Urban Infrastructure & Environmental Products Company, Other Construction Sites	Number of occupational accidents (both those with lost time and those without lost time) at construction sites under the supervision of the Urban Infrastructure & Environmental Products Company and Headquarters during the subject fiscal year (April through March)		
	Scope of summation: Production sites and laboratories, headquarters departments, and back offices of division companies, all located in Japan			
Health, Safety and ccident Prevention	Costs within Business-Site Areas	Health and safety measures, rescue and protective equipment, measurement of work environment, health management, workers' accident compensation insurance, etc.		
	Administrative Costs	Establishment and implementation of OHSMS, safety education, personnel costs, etc.		
	Other	Safety awards, etc.		
20313	Investment Amount	Amount of investments related to health, safety, and accident prevention approved during the subject fiscal year (April through March)		
	Loss Costs	Expenses, including person-hours, required to respond to occupational accidents, equipment-related accidents, commuting accidents, and extended sick leave during the subject fiscal year (April through March)		