



# Environmental and Social Report 2014

Technologies to pass our global environment down to future generations.



# Our "chemistry to respond to people's needs"

To soundly  
preserve the global  
environment

To secure  
security and  
reassurance  
in life

To realize  
convenience and  
affluence  
in society

Functional Chemicals Business Division  
Plastic Materials Business Division  
Electronic Materials Business Division

## ► Surfactant Business

Surfactants, which have played a pivotal role from the starting point of our company, are used in a wide variety of industrial fields, such as rubbers, plastics, colorants, machines/metals, cosmetics/human-life related industries, paper/pulp, fiber, agrochemicals/agricultural materials, civil engineering, and energy-related industries.

## ► Amenity Material Business

Our amenity material business has been supplying not only various materials used to improve the amenities within our living environment, such as sucrose fatty acid esters, sodium carboxymethyl cellulose, and polyvinylpyrrolidone, but also the peripheral applied technologies. They are widely used in many fields surrounding our daily life including foods, pharmaceuticals and cosmetics, and fishery/livestock industries.

## ► Polyurethane Business

Because they are produced via various reaction processes or process techniques, polyurethane resins are used in many industrial materials, such as urethane foam, elastomer, paints, adhesives, artificial leather, civil engineering and building materials, and electrical insulating materials. Our company's polyurethane resins can serve as the raw material for many urethane products.

## ► Functional Material Business

The usage of synthetic resins covers home electronic appliances, residential materials, and other commodities of daily life. Our functional material business has been supplying radcure resins, polyurethane resin water dispersions, flame retardants, and plastic additives, for which the intention is to enhance the performance and added value of synthetic resins and to facilitate environmental improvement.

## ► Electronic Device Material Business

Technological innovation in the IT-related field, as symbolized by the popularization of computers and cellular phones, has been constantly spurred on public demand. By drawing on our unique technologies, we have been devoted to developing various types of electronic products, including conductive pastes, ceramic materials, ionic liquids, and lithium cells, and providing support for technological innovation in the field of electronic devices.

# CONTENTS

Message from the President .....	3
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## About US

Company Overview .....	5
Medium-term Management Plan "Change 100 Plan" .....	6
Our Products Useful in Daily Life.....	7
Environmentally Friendly Products & Technological Development ...	9
Selected Products .....	10

## Promoting Environmental & Social Activities

For CSR promotion / Corporate Governance .....	11
Compliance / Internal Control / Risk Management .....	12

## Environmental and Safety Activities (RC Activities)

Basic Philosophy, Basic Policies, and Corporate Principles for Environmental and Safety Practices...	13
RC Promotion System/Management System .....	14
Targets and Performance .....	15
Environmental Accounting .....	16
Global Warming Prevention (Energy Conservation) .....	17
Efforts to Reduce Emissions of Chemical Substances ...	18
Chemical Substance Management .....	19
Efforts to Reduce Waste .....	20
Efforts to Occupational Safety .....	21
Efforts to Process Safety and Disaster Prevention.....	22

## Social Activities

Information Transmission Tools.....	23
Relations with Society & Local Communities .....	24
Relations with Our Customers & Business Partners .....	26
Relations with Our Shareholders & Investors .....	28
Relations with Our Employees .....	29

## On-Site Report

Yokkaichi Branch / Ohgata Branch .....	33/34
Shiga Branch / Yokkaichi Chemical Company, Limited....	35/36
KYOTO ELEX CO., LTD./DAI-ICHI CERAMO Co., Ltd./Elexcel Corporation ...	37
P.T. DAI-ICHI KIMIA RAYA/CHIN YEE CHEMICAL INDUSTRIES, CO., LTD./SHUANG YI LI (TIANJIN) NEW ENERGY CO., LTD. ....	38

### Posted on the website

Business of Dai-ichi Kogyo Seiyaku and History of Environmental and Social Activities  
The emission amount of notification substances under the PRTR Law in FY2013

## Environmental and Social Report 2014: Editorial Policy

Dai-ichi Kogyo Seiyaku has published the "Environment & Safety Report" annually since 2003, and delivered the report about RC (Responsible Care) activities. In 2008 we added new content on our social activities to the previous contents on our environmental, safety, and health efforts, and renamed the report "Environmental and Social Report." Since then we have continued to improve our involvement in society.

This report aims to explain to our stakeholders the efforts taken by Dai-ichi Kogyo Seiyaku on environmental and social activities, and promote our communication. We always keep in mind that we should do our best to disclose lucid and comprehensive reports in a sincere manner.

Since 2010 we have posted our reports in English on our website.

## A Summary of Dai-ichi Kogyo Seiyaku's Environmental and Social Report

### • Organizations Covered by this Report

Dai-ichi Kogyo Seiyaku

Head Office, Laboratory, Tokyo Head office, Osaka Branch, Nagoya Branch, Kyushu Branch, Yokkaichi Branch, Ohgata Branch, and Shiga Branch

National Affiliates (\*: located within the premises of Dai-ichi Kogyo Seiyaku)

Yokkaichi Chemical Company, Limited.

Gembu Co., Ltd.\*

DAI-ICHI KENKOU CO., Ltd.\*

DAI-ICHI CLEAN CHEMICAL, INC.\*

DAI-ICHI CERAMO Co., Ltd.\*

KYOTO ELEX CO., LTD.\*

Elexcel Corporation

SUZAKU MICHI Co., Ltd.\*

In the description related to our performance, we use the following definition and distinguish between "Dai-ichi Kogyo Seiyaku" and "Dai-ichi Kogyo Seiyaku Group."

Dai-ichi Kogyo Seiyaku: Dai-ichi Kogyo Seiyaku and national affiliates located within the premises of Dai-ichi Kogyo Seiyaku

Dai-ichi Kogyo Seiyaku Group: Dai-ichi Kogyo Seiyaku and all national affiliates

### • Period Covered by this Report

Essentially, this report contains our activities and data for fiscal year 2013 (from April 1, 2013 to March 31, 2014). The data on Industrial Accident Severity Rate (ASR) and Industrial Accident Frequency Rate (AFR) were obtained from January to December 2013.

### • Reference Guidelines

"Environmental Reporting Guideline 2012" from the Ministry of the Environment

"Environmental Reporting Guideline 2005" from the Ministry of the Environment

"Environmental Accounting Guideline for Chemical Industries (November 2003)" from the Japan Chemical Industry Association (JCIA)

## Implement the approach to "chemistry to respond to people's needs," and contribute to the realization of a sustainable society through our business practices.

"Getting ahead of the times as a leading chemical manufacturer that offers industrial chemicals"  
Actualize customer satisfaction and pursue the goal of being a company of importance.



The economy in Japan in FY2013 showed improvement in business investment in addition to export and production on the background of the cheaper yen and high stock prices, and it is steadily recovering. However, the effects of overseas economies, such as those in emerging countries, are still unknown. In the chemical industry, the rising price of the base ingredient naphtha due to rising energy prices and the cheaper yen largely strangles profits, and we still face a tough situation.

Under such circumstances, we attempted to expand sales of the core product business in our group, and have been devoted to development of a new market and new materials, stable securing of raw materials, securing of appropriate profit margins, and reduction of total expenses via a new cost reduction plan, mainly in the future of growing fields, such as "environment," "energy," "electronic materials," and "life materials," in order to overcome such a severe business environment.

### "Change 100 Plan" Stage II

**Move a step further. Our action is what leads the future.**

The medium-term management plan: "Change 100 Plan" stage II sets the management vision as follows: We should get ahead of the times as a leading chemical manufacturer that offers industrial chemicals, and realize our company motto "contributing to the nation and society through industry." We should take responsibility in product innovation and progress through this age of globalization. We should interpret global trends and walk the paths of continuation and progress." We regard this plan as the milestone on the road to company image in 2025, and reveal plans based on a long-range perspective.

In FY2013, we formulated the Yokkaichi district base realignment plan and actually launched it. When companies are called into question their continuation and progress in the current world of globalization, we judged the necessity of applying our own fundamental technology and implementing business investment for new businesses.

In the realignment of the Yokkaichi district, we will include integrated development functions, such as development of our new business plans and new materials, and position the Yokkaichi district as our "mother plant," a plant that takes a key role in moving toward the future. As realignment of production bases including our affiliates, we intend to implement this plan with unwavering resolve.

To carry out the practice task of "expanding into the peripheral fields" set as the management policy, it is vital to thoroughly review the businesses

and expand their peripheral fields for acquiring an expansion trend in a short period. We are considering expansion methods by looking at the surroundings of current products themselves from a new point of view, retraining our "eyes of the customers" and looking widely at the current market, as well as enhancing added values of our own peripheral technology.

Concerning the task of creation of new businesses, we decided to use our own cellulose-applied technology and commercialize cellulose single nano-fiber, and began construction of demonstration facilities. Concerning the task of strengthening overseas operations, we established the DKS Co. Ltd. Representative Office Singapore in charge of market research mainly in Southeast Asia in order to take advantage of the high quality we have cultivated in the domestic market, as well as our own technology to help customers solve problems.

The medium-term management plan stage II provides ambitious prospects in anticipation of the process of targeting a company image in 2025, but we should not make this plan to end up only as hopes and dreams. The FY2014 will be the final year of the plan. We need to set up more specified goals to achieve and steadily complete each goal one by one. For this year, while each employee seriously asks in their hearts whether they implemented the goals or not, how they implemented them, and what they actually did, and we would like to proceed further together.

### Promotion based on corporate social responsibility

To establish a management base that gains the trust of society and conduct corporate activities based on corporate social responsibility (CSR), we set up enhancement of the compliance system as the management policy. We are promoting it as the one of our most important tasks. We established our Code of Corporate Ethics in 2004. In this code, we declare that each of our employees will observe all legal regulations and international rules and obey the spirit thereof, respect cultures and customs in each country and region where we conduct business activities, and behave in a socially sensible manner.

In order to enhance our corporate governance further, we elected representative directors who were away from the execution-centered position, and planned to enhance management and supervision of execution in FY2013. As a result, we could further advance separation between management and execution, and make each role and tasks of directors and executive officers clearer.

Through control committee activities, such as with the Compliance Control Committee, Risk Management Control Committee meetings, IT System Control Committee, and Financial Reporting Control Committee, we make efforts to review various internal regulations and maintain the internal control system, as well as to instill CSR in our employees.

We will continue transparent and healthy management in order for the company to continue being trusted by our stakeholders and with a high entity, as well as in order to continue as a company where all employees conduct fair and healthy business activities as members of society.

### Engage in Responsible Care (RC) activities and fulfill our commitments as chemical manufacturer.

Our group promotes the RC activities by placing them at the management base as a chemical company. Through these activities, we ensure a secure environment, safety, and health on a continuing basis, and aim at the establishment of a trusting relationship within society, and the realization of a sustainable society.

In terms of environmental protection, we set the medium-term environment goals, and continue to promote reduction of GHG emissions and the amount of waste generated. In FY2013, we installed a power generator using methane gas (renewable energy) emitted as a by-product during anaerobic treatment of environmental waste-water, and provided a proper response to preparation of facilities according to the revised Water Pollution Control Law. Security and accident prevention is the most important issue for chemical manufacturers. In order for no severe accidents to occur, we reviewed our manufacturing sites based on the "Guideline for Security and Accident Prevention" made by the Japan Chemical Industry Association.

We encourage you to look over this summary of our activities in FY2013 titled "Environmental and Social Report 2014." We hope this report will help you to deepen your understanding of our company. We would appreciate and welcome any and all straightforward opinions and reviews.

Sincerely yours,

June, 2014

OYANAGI Masatoshi, Ph.D.  
President





# Making Efforts on Environmental and Social Activities

Our company has been actively making efforts on environmental and social activities since the company's establishment. We received a commendation from outside organizations, and our activities have attained high reputation.

## Company Overview

### Overview

Company Name: DKS Co. Ltd.  
 Head Office: 5 Ogawara-cho, Kisshoin, Minami-ku, Kyoto, Japan  
 Date Business Started: April 1909  
 Date Established: August 1918  
 Representative: OYANAGI Masatoshi, Ph.D. (President)  
 Capital: 7.1 billion and 41.7 million yen\*  
 Number of Employees: 969 persons (consolidated)\*  
 514 persons (non-consolidated)\*  
 (\*as of the end of March 2014)

### Domestic Branches

#### DKS Co. Ltd.

- Head Office, Laboratory (in Kyoto Central Branch)
- Main Branch
  - Tokyo Head Office
  - Osaka Branch
  - Kyushu Branch
  - Ohgata Branch
- Nagoya Branch
- Yokkaichi Branch
- Shiga Branch

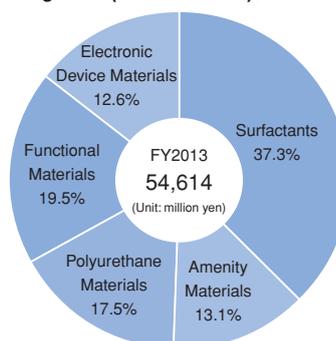
#### Affiliates

- Domestic: 9 companies
- Overseas: 8 companies
- Total: 17 companies

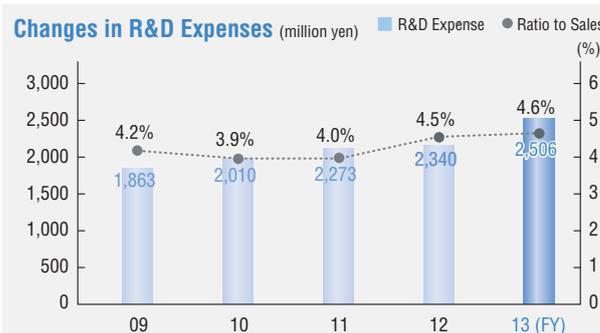
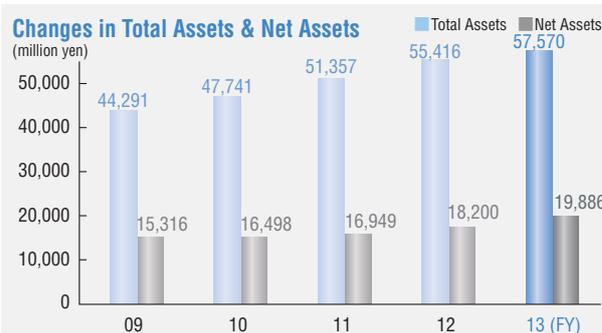
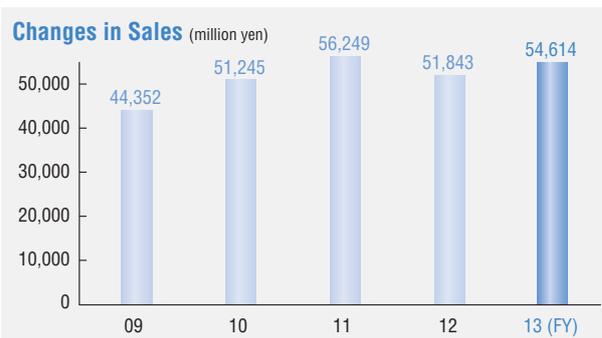
### Business Segments & Main Products

Business Segments	Main Products
Surfactants	Non-ionic surfactant, anionic surfactant, cationic surfactant, amphoteric surfactant
Amenity Materials	Sucrose fatty acid esters, cellulose type polymer, vinyl type polymer, acrylic acid type polymer
Polyurethane Materials	Polyurethane polyol, urethane prepolymer, urethane system
Functional Materials	Materials used for radcure resins, water-borne urethane resin, flame retardants, amide-type lubricant
Electronic Device Materials	Conductive paste for electronic components, injection molding pellets, functional inorganic materials

### [Sales by Business Segment (Consolidated)]



### Management Index



# Getting Ahead of the Times of Chemistry

The medium-term management plan "Change 100 Plan" started in the year of the 100th anniversary of the company's foundation. We devote our efforts to converting the corporate culture, and proceeding towards expansion of our business while maintaining our business quality.

## Medium-term management plan "Change 100 Plan"

### Stage II –Expansion Accompanied by Earnings– (from April 2012 to March 2015)

#### ► Management Vision

We "get ahead of the times as a leading chemical manufacturer that offers industrial chemicals," and realize the company motto "Contributing to the nation and society through industry."

We take responsibility in product innovation and progress through the age of globalization.

We interpret global trends, and walk the way of continuation and progress according to our company credo of "Quality First, Cost Reduction, R&D Efforts."

In the mature society of advanced countries, we set our sights on purification maintenance of global environment, and conversion fields to recyclable or natural energy.

Looking over the developing society of emerging countries, we pursue our business opportunities under similar geographical conditions as those in China, India, and ASEAN countries that represent the said countries.

Based on the solutions of our own development ability and technology, we implement the approach to "chemistry to respond to people's needs," and actualize our company image from Kyoto, to the world, and to the future.

#### ► Management Policies

We maintain the quality of business contents we have secured in Stage I, and move forward on expansion of our business.

##### (1) Expanding into the peripheral fields

We enhance increase of sales by horizontal development and deep digging to expand the peripheral fields of "current products, technology, and customers."

##### (2) Replenishing and revitalizing the production bases in Japan

We devote our efforts on the securing of and the replenishing of new production bases and build the foundation of expansion and growth.

##### (3) Speeding up creation of new businesses

We create new business and invest facilities for our future business portfolio.

##### (4) Pursuing cost minimization

We promote activities on improvement of thorough productivity and new cost minimization.

##### (5) Enhancing management and fostering human resources

We put our efforts on the launch of the DKS Productive Maintenance, fostering of global human resources, and enhancement of management ability in Japan and overseas.

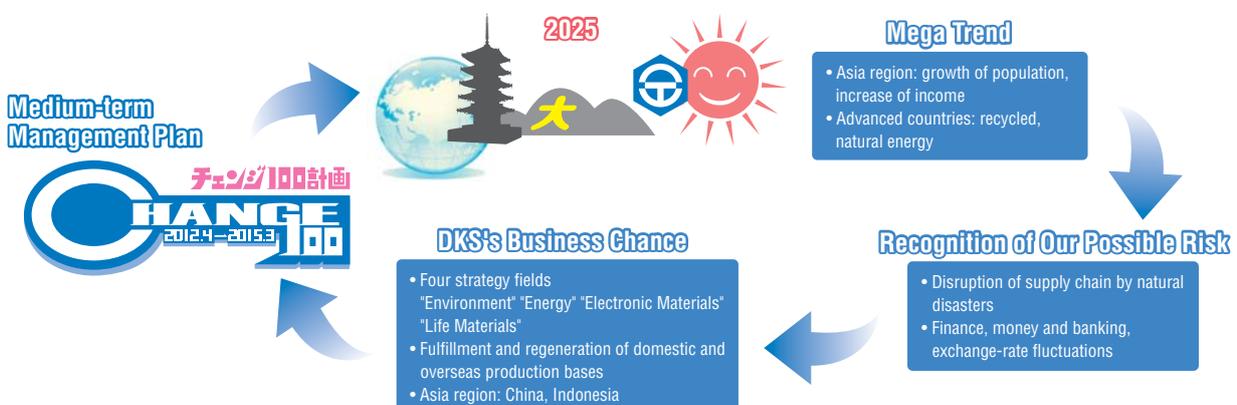
##### (6) Strengthening overseas operations

We enhance development and management in China and Asian regions, and have started to new expansion of business.

#### ► Numerical Targets

	Performance in FY2013	Target in FY2014
Consolidated Net Sales	54.6 billion yen	60 billion yen or more
Consolidated Operating Margin on Sales	4.5%	5 % or higher
Per Capita Sales	56.36 million yen	62.00 million yen
Cost of Sales Ratio	78.5%	77.8%
SG&A Expense Ratio	16.9%	16.9%
Inventory Turnover Rate	1.7 months	1.6 months

## Expansion Accompanied by Earnings



We approach the company's progression with the viewpoints of "5W1H plus 1."

We execute the points of Why (management vision), What (management policies), When (periodical index), Where (each department), Who (a person in charge), How, and How Much, and make efforts to accomplish our targets.

For the overview of the "Change 100 Plan," please see our company's website (<http://www.dks-web.co.jp>).



# Utilized in Various Fields

Our products will aid us in daily life as useful materials and through the members of various products. This section introduces some examples from scenes in everyday society and the environment.

## Our Products Useful in Daily Life

### 1 Surfactant Business

### 2 Amenity Material Business

**Silicon wafer detergent**  
● DK BE-CLEAR CW

**Conductive paste for solar cells**  
● DD-1200C

**Rigid polyurethane foam for insulator material**  
● DK POLYOL

**Bed, cushion (Soft or semi-rigid polyurethane foam)**  
● HIFLEX  
● DK FLEX

**Optical sheets, Hard coating agent (Radcure resins)**  
● NEW FRONTIER  
**(Waterborne polyurethanes)**  
● ELASTRON

**Flame retardants for plastics**  
● PYROGUARD

**Semiconductor sealant materials**  
● Allyl glycidyl ethers

**Sealing material for electric insulation (Gas water heater control units)**  
● EIMFLEX

**Polymerizable emulsifier (Paint)**  
● HITENOL

**Materials for cosmetics (Shampoo, rinse, hair gel)**  
● NEO-HITENOL  
● CATIOGEN ● CREEJUS  
● Phenoxyethanol  
● COSMELIKE

**Car seatbelts**  
● ELASTRON

**Epidermis material for car interior**  
● SUPERFLEX

**Hybrid vehicle electric components**  
● EIMFLEX

**Paint resin for cars**  
● SUPERFLEX

**Emulsion polymerization emulsifier (Tire rubber)**  
● LAVELIN

- Non-ionic surfactant
- Anionic surfactant
- Cationic surfactant
- Amphoteric surfactant

- Sucrose fatty acid ester
- Cellulose type polymer
- Vinyl type polymer
- Acrylic acid type polymer



**Coating material for building material, furniture, and home appliances (Radcure resins)**  
● NEW FRONTIER

**Food additives**  
● DK ESTER  
● DK FOAMER ● CELLOGEN

**Flame retardants for textile**  
● PYROGUARD

**Binders for lithium-ion batteries**  
● CELLBINDER



### 3 Polyurethane Business

- Polyurethane polyol
- Urethane system
- Urethane prepolymer

### 4 Functional Material Business

- Materials used for radcure resin
- Flame retardants
- Water-borne urethane resin
- Amide-type lubricant, plastic additives

### 5 Electronic Device Material Business

- Conductive paste for electronic components
- Injection molding pellets

#### Detergents for linen supply

- LINEN FINE

#### Detergent for cleaning

- FINE SHOT

#### Binders for agrochemicals

- CELLOGEN

#### Binders for rock consolidation

- GANBAN
- Injection water-stop material
- POLYGROUT

#### Elastic pavement material

- RUBBER STYTER

#### Heavy corrosion-preventing agent

- PERMAGUARD

#### Spillage oil treatment agent

- SEACLE

#### Feed additives for cultivation

- CELLOGEN

#### Waterproof roofing material

- POLYFLEX

#### Water reducing agent and fluidizer for concretes

- SELFLOW

#### Optical fiber connector

- Zirconia compound for ferrule

#### Buildings strengthening agent (Epoxy diluent)

- EPOGOSEY





# Environmentally Friendly Products & Technology

One of the missions of an industrial chemical manufacturer is to develop environmentally friendly materials. We develop a great number of products using chemical technology know-how accumulated over many years.

## Environmentally Friendly Products & Technological Development

### ► Our Products and Technology Development

Responding to environmental requirements including global warming prevention, energy and resource saving, environmental protection, and the prevention of environmental pollution, we are devoted to supplying environmentally friendly and compliant products and developing related technologies.

Environmental Requirements	Functions & Features	Our Product Line & Technology/Application		
Global Warming Prevention	Clean Energy	Development of DSC (dye-sensitized solar cell)		
		Lithium-ion battery		
		CELLBINDER Series	Binder for lithium-ion batteries	
	Halogen-free type	DD-1200C Series	Conductive paste for solar cells (lead-free)	
		DK BE-CLEAR Series	Waterborne washing agents	
Energy & Resource Saving	Energy Efficiency	DK POLYOL 3000 Series	Materials/insulators for non-CFCs (water-blown type) polyurethane foam	
		COLOURSOL CT-171D	Accelerating/leveling agents for polyester	
		NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coating agents	
	Effective Resource Utilization Extension of Life Span	DK SYSTEM NF Series	System for non-CFC rigid polyurethane form · insulator	
		Anti-solidification agents for slag		
		ELEXCEL IL Series	Ionic liquids/energy device materials	
Environmental Protection and Prevention of Environmental Pollution	Environmentally Responsive	EIMFLEX Series	Polyurethane resins for electrical insulation · sealing material	
		NOIGEN TDS Series, NOIGEN XL Series	Nonionic surfactants/emulsifiers, cleaning agents	
	VOC* Reduction	REOCRYSTA Series	Cellulose single nanofiber water dispersions	
		SUPERFLEX Series	Polyurethane water dispersions/paints, coating, binders	
		EIMFLEX Series	Waterborne polyurethanes for electric insulating/sealing materials	
		ELASTRON/ELASTRON BN Series	Thermal-reactive polyurethane water dispersions, binders, adhesives	
	Reduction of Environmental Impacts	NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coating agents	
		HITENOL KH Series	Polymerizable surfactants/emulsifiers for emulsion polymerization	
		Removal of Contaminants	SEACLE N-800	Spillage oil treatment agents for marine
DEOPELLET Series	Foul odor gas absorbents			

\* VOC: Volatile Organic Compounds

### ► Products Meeting Environmental Requirements

#### A New Thickener Using Cellulose Applied Technology

##### Cellulose single nanofiber/REOCRYSTA Series

REOCRYSTA is the water dispersions of cellulose single nanofiber (CSNF), of which the fiber diameter is controlled to less than 10 nm. Many kinds of applications is expected in industry fields as a next-generation material. CSNF derived from cellulose is a new material with recyclable/renewable and environmentally friendly.

REOCRYSTA can be sprayed like liquid, though its fiber width is shorter than visible wavelengths, and it forms transparent gel. We are promoting development of the technology as a new thickener in the fields of cosmetics and paints/ink by utilizing this feature.



### Voice from the Person in Charge



Waterborne Urethanes R&D Team  
TAKEKAWA Tadashi

Waterborne urethanes have the advantages of excellent flexibility, toughness, and adhesion possessed by urethanes, and they are used for paints, adhesives, and coating agents. Waterborne urethanes that do not include any volatile organic solvents can be thought of as materials that take people and the global environment into consideration. Performance may decrease when solvent-based materials are replaced with water-based materials. However, we integrate our accumulated know-how of the technology of creating urethane and interface chemistry, and develop technology in response to the performance required. In order to satisfy customers' diversifying needs for water-based treatment, we continuously devote our efforts to development.

## Selected Products

Numerous product lines developed using chemical technology know-how accumulated for long years. We support many industries behind the scenes as a industrial chemical manufacturer that offers chemicals and intermediate materials used in industrial processes, and contribute to establishment of a comfortable, affluent, and sustainable society.

### Contribute to productivity and reduction of environmental impacts

#### UV/EB Curable Resin NEW FRONTIER Series

##### ► About UV/EB Curing

UV/EB Curing is the technology that generates radicals by delivering ultraviolet (UV) or electron beams (EB) for curing resins. Unlike the heat-curing method, UV/EB curing can be used to apply coating to base materials easily affected by heat. It can also provide solvent-free paint/ink compositions, which could prevent air pollution. Also, the high curing speed makes processes faster, which can lead to improved productivity.



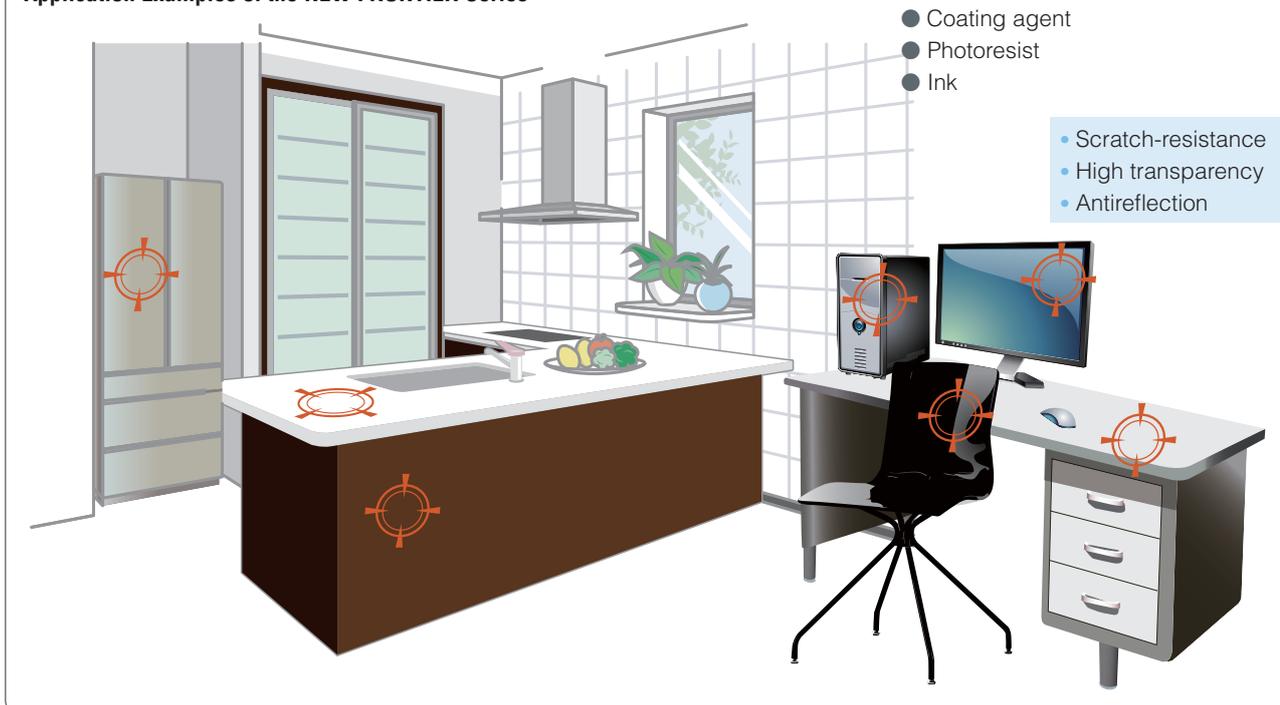
##### ► About the NEW FRONTIER Series

UV/EB curable (radcure) resin is used widely, ranging from building materials to electronic materials, such as wood paints, planographic inks, plastic coatings, resist inks, optical disc adhesives, optical fiber coated resin, resin for LCD components forming, and UV-curing inkjet inks.

We manufacture and distribute radcure resin materials, both monomers and oligomers as part of our NEW FRONTIER Series, based on the acrylate (methacrylate) esterification technology starting from the long-cultivated reactive surfactants technology. Acrylate (methacrylate) monomers have the advantages of low contents of ionic impurities, low skin irritancy, low cure shrinkage, hydrophile-hydrophobic balance provided, and flexibility.

Concerning oligomers, we develop the NEW FRONTIER R Series for functional oligomer and polymerizable materials, with a central focus on urethane acrylate based on the technology of creating urethanes.

#### Application Examples of the NEW FRONTIER Series





# Aiming to be a Trusted Company

We continue to maintain the corporate governance system in order to attain a level of high confidence from society. We also operate our control systems appropriately so that the company organization is properly managed.

## For CSR promotion

- Our company motto** Contributing to the nation and society through industry
- Our company credo** Quality First / Cost Reduction / R&D Efforts

We believe that it is important to gain a high degree of confidence from all stakeholders including the society, customers and business partners, stock holders and investors, as well as employees through fair and transparent corporate activities based on corporate social responsibility (CSR). In order to realize our company motto and credo and to promote our CSR, we have established the "Code of Corporate Ethics" and "Declaration of Action for Executives and Employees" to practice and improve corporate governance, compliance, internal control, risk management, etc. Our company group aims to become an important existence in the world by promoting CSR from views of economy, society and environment.

### ▶ Code of Corporate Ethics

We confirmed that establishment of corporate ethics would contribute to the practice of our company motto, "Contributing to the nation and society through industry," and established our Code of Corporate Ethics. It states that we will observe all legal regulations and international rules and obey the spirit thereof, respect cultures and customs in each country and region where we conduct business activities, and behave in a socially sensible manner, based on the six principles.

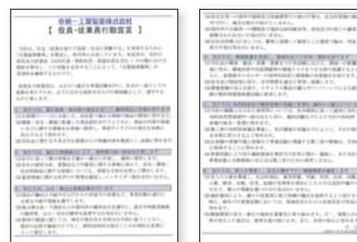
#### Items of Code of Corporate Ethics

1. Offering of useful products and achievement of customer satisfaction
2. Securing of transparency in management
3. Blocking of relationships with antisocial forces
4. Promotion of harmony in terms of environmental protection and with local communities
5. Strict management of intellectual properties and information
6. Respect of individual personality



### ▶ Declaration of Action for Executives and Employees

The Declaration of Action for Executives and Employees specifies the guidelines of basic mental attitude and daily conduct for each of said executives/employees (including employees on temporary assignment, contract employees, and temporary staff) to observe the standards set in the Code of Corporate Ethics. The "Declaration of Action for Executives and Employees" is also available in card form. The card has been already handed out to all of our board members and employees. The Whistleblower Hotline was set up in 2006. This hotline is a contact point for any employee who has information about (alleged) violations of law and/or wants to report an actual violation of the law. Whatever access mode is used (phone,



e-mail, postal mail), the Whistleblower Hotline is directly connected to our Compliance Control Committee.

Declaration of Action for Executives and Employees Leaflet

## Corporate Governance

We basically consider that we should establish a management base that gains the trust of society and conducts transparent and fair corporate activities based on corporate social responsibility in order to continuously enhance the corporate value. In order to support these activities, we have established and will continue to strengthen our corporate management system and other corporate governance systems.

All management decisions are made by the Board of Directors that includes outside directors. All matters that are brought up to the Board of Directors are first discussed at the management committee so that decisions are rational and conform to the laws and articles of incorporation.

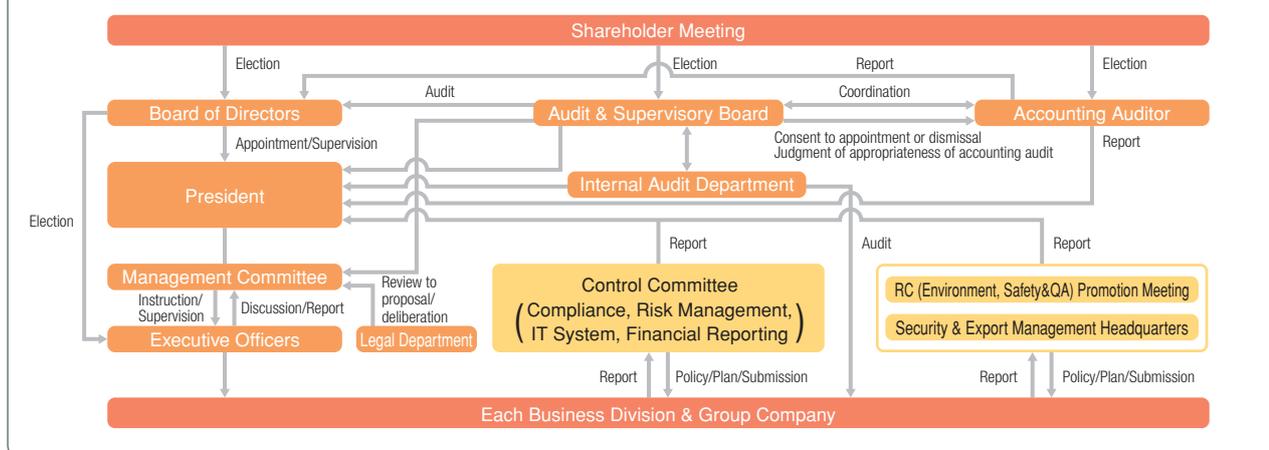
We have also established the executive officers system for executive officers to determine matters in need of decision by the Board of Directors as well as perform other business executions. Executive officers include the President, Managing Executive Officers, Senior Executive Officers and Executive Officers and are composed of Division Managers that are appointed and supervised by the Board of Directors. Executive officers bear the direct responsibility for the business results of the departments in charge and efforts are being made for the smooth and unified execution of

business by reporting business results and important matters at the Executive Officer Committee.

Our auditors including outside auditors form the Audit and Supervisory Board. The Board demands from the Directors and employees reporting of necessary for auditing the execution of business including the progress of management plans, decisions made by the Representative Director, status concerning risk management of losses and changes in important accounting policies. In addition, the Audit & Supervisory Board Member conducts auditing on a daily basis by attending such meetings as management committee, Risk Management Control Committee meetings, Compliance Control Committee meetings, etc. Concerning important auditing issues, opinions are exchanged regularly between the Audit and Supervisory Board and Representative Director for mutual awareness and stronger relationship of trust. Auditing of accounts is conducted by KPMG AZSA LLC jointly attended by the Audit & Supervisory Board as needed.

We have also established the Internal Audit Department as a system to verify the internal control system concerning financial reports.

## Corporate Governance System (in force as of March 31, 2014)



## Compliance

Our company established a Compliance Control Committee in 2004. This committee has been engaged in establishing our own compliance system and performing multiple activities to instill compliance practices within our company. We will continue to enhance further compliance practices.

### ► Activities to Instill and Implement Compliance Practices

We set up the Whistleblower Hotline as a contact point for any employee who has information about (alleged) violations of law and/or wants to report an actual violation of the law. We have been conducting a "Research on Compliance Awareness" once a year, in order to check to what extent the compliance-based management philosophy is instilled in our employees. In addition, compliance assessment has been undertaken on a sectoral basis.

We provide simple explanations about various laws via company intranet, as well as e-learning programs using quiz-type games to firmly fix this knowledge. In 2010 we designated every October as the corporate ethics campaign month, and since then have conducted various events and educational activities with the aim of improving our awareness of compliance.

## Internal Control

We acknowledge that any enterprise must comply with laws and regulations, fulfill its obligations as a member of society through proper business activities to ensure stakeholders' interests are served, and make a positive contribution to society while gaining the confidence of said society. In May 2006, the board of directors passed a resolution on "Systems for Ensuring the Proper Operation of the Dai-ichi Kogyo Seiyaku Group." We have been engaged not only in internal control in compliance with Japanese Corporate Law but also in performing periodic reviews of our internal control systems and their maintenance and operation, in order to ensure the credibility of financial reports in accordance with the Financial Instruments and Exchange Law. In addition to having set up appropriate

internal control committees, we have established our Information Security Rules. Serving as the foundation of our economy and society, IT controls currently play a larger role than they used to.

Thus, in order to reduce information system risks such as information leaks, we have developed information security policies and standards for risk measures and have defined procedures for information security practices to ensure the information security of our company. In recognition of the importance of internal control systems, our Financial Reporting Control Committee and Internal Audit Department play a central role in various internal control matters.

## Risk Management

The risks companies face have become diversified and complicated, which may result in increased adverse impacts on shareholders. Our company places risk management as an important business challenge, and sets up the Risk Management Control Committee consisting of representatives from each branch and department. The Committee office members devote their efforts on operation and maintenance of the risk management system every day so that they obtain risk information both domestic and overseas instantaneously, and comprehend the situation and take appropriate measures. To address potential and/or evident risks to our business activities, we have established our Risk Management Procedures, Product

Liability (PL) Prevention & Management Procedures, and Information Security Rules, etc. In FY2013 we conducted continuous risk measurements in each sector and their progress management. In addition, we prepared quick reference manuals for emergencies based on the risk management procedures. Following the Business Continuity Plan (BCP) concerning earthquake countermeasures in production branches, and the Head office, we prepared the BCP in the Tokyo Head Office. Also, we repeatedly conducted safety confirmation training in all branches and departments in order to enlighten and raise our risk consciousness for preparation in an emergency.



## Aiming for a Society that can Develop in a Sustained Manner

We make efforts to conserve global environment through Responsible Care (RC) activities with the aim of protecting the environment, safety, and health, as well as to establish a circulating society.



Executive Officer/Division Manager of the Production Control Division (in charge of Environment, Safety & QA)

**MURAKAMI Osamu**

We are independently promoting Responsible Care activities that implement and improve environmental safety measures by making a pledge under the management policy of taking steps toward environmental, safety and health considerations without simply being satisfied of abiding laws and regulations.

In terms of environmental protection activities, we have set a medium-term goal of reducing greenhouse gas and industrial wastes during the period between FY2013 and FY2015. We started electrical supply using recycled biomass fuel of methane gas generated during anaerobic treatment of wastewater at a small scale. We are also promoting reduction of chemical substance emission and preparation for the changes in the Water Pollution Prevention Act.

In terms of our security and accident prevention activities, we have taken into account the serious accident that occurred in the chemical industry. We have evaluated the possibility of similar accidents that may occur in our plants, reviewed our emergency handling manual, and extracted and implemented measures for dangerous locations and processes. We are also organizing periodical emergency and evacuation drills to prepare for the event of an accident.

In terms of our occupational safety and health activities, we put more efforts into improving the level of power in the field through continuous safety activities (KYT (risk prediction training), patrol, 5S and pointing and calling) for an accident-free workplace with the Safety and Health Committee and Risk Assessment Committee.

Committed to the self-management spirit of Responsible Care activities, we will continue to make efforts in our safe and worry-free production activities to gain trust from society.

## Basic Philosophy, Basic Policies, and Corporate Principles for Environmental and Safety Practices

### Basic Philosophy

We have adopted the following business philosophy for all our business activities: "By providing quality products to ensure customer satisfaction, we not only strive to be a prosperous company while moving forward with our employees and serving local communities, but also contribute to creating an affluent society." Based on this philosophy, we adopt the following statement as our basic philosophy for environmental and safety practices: "Throughout the entire life cycle of our products, from development to disposal, we pay special attention to both human safety and health and environmental preservation, as well as contributing to sustainable development and the realization of our goal for an affluent society."

### Basic Policies

- 1 Throughout the entire life of our products, from development to disposal, we evaluate and reduce each product's load on the environment and do our best to ensure the protection of the environment.
- 2 We maintain no-accident operations to ensure safety for the employees and the residents of the surrounding areas.
- 3 We ensure the safety of raw materials and interim and final products, and prevent any health disorders of everyone concerned, such as employees, carriers, customers, and general consumers.
- 4 We not only obey relevant laws and regulations, but also actively and constantly examine and improve the environment and safety through self-management.

### Corporate Principles

- 1 We evaluate the effects of our business activities on the environment and human safety and, further, set and periodically review our environmental targets/goals and safety targets to ensure continuing improvement of both our environmental conservation activities and occupational safety and health activities.
- 2 We obey any laws, regulations, and agreements related to both the environment and occupational safety and health issues to ensure coexistence with our local communities.
- 3 To reduce environmental impacts, we are devoted to performing all of our business activities in such a manner as to achieve resource and energy conservation, promotion of waste reduction and recycling, and improvement of occupational safety and protection of health.
- 4 When developing our products and technologies, we are devoted to providing safe products while paying special attention to environmental and safety matters, and fully understanding the extent to which the product will impact the environment.
- 5 We make our best efforts to help all of our employees to fully understand the environmental and safety policies and to improve their environmental and safety awareness by implementing environmental and safety training and workplace communication activities. For this purpose, we ask our affiliate companies for their continued understanding and support.

### What Does It Mean?

#### Responsible Care (RC) Activities

Responsible Care (RC) activities refer to activities voluntarily conducted by the respective companies handling chemical substances to ensure environment, safety, and health improvements. We also promote dialog and communication with the public by making the results of such activities publicly available throughout the entire process, from the development of a chemical substance to manufacturing, distribution, use, final consumption, and disposal/recycling.



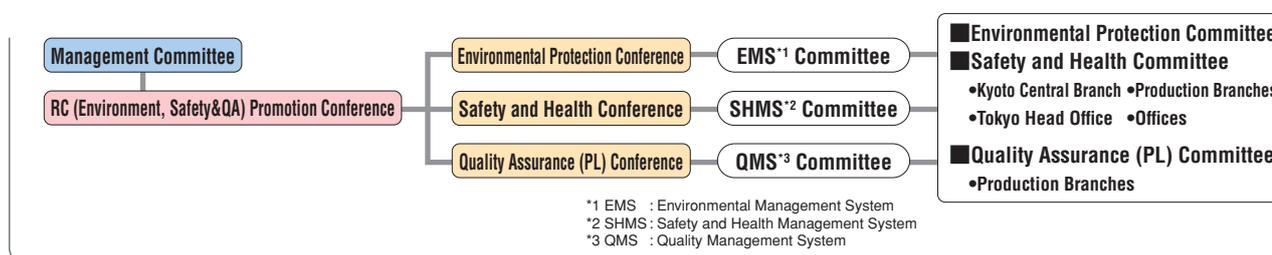
Responsible Care

## RC Promotion System

We have established an RC Promotion Conference with our president as its chairman. At the conference, we deliberate on and decide agenda items based on our Basic Philosophy, Basic Policies, and Corporate Principles for Environmental and Safety Practices.

In order to effectively promote our RC activities, we have established three different conferences - the Environmental Conservation Conference, Safety and Health Conference, and QA (PL) Conference - composed of branch managers and the heads of relevant departments and sections, and chaired by the person in charge of Environment, Safety & QA. At these

conferences, our company-wide targets and implementation plans and their results are deliberated on. We have also established, as a sub-organization of our conferences, three company-wide committees - the EMS Committee, SHMS Committee, and QMS Committee - as well as three committees in each of our manufacturing branches - the Environmental Protection Committee, Safety and Health Committee, and QA (PL) Committee. The conferences have been held periodically to formulate implementation plans for RC targets to manage the progress of these plans, and to summarize obtained results.



## Management System

We define our RC activities based on the RC Promotion and Management Regulations, Environmental Conservation and Safety and Health Management Regulations, and Quality Assurance Management Regulations to address and implement them.

In each production base in Japan and overseas, we have acquired the ISO14001 and ISO9001 certifications for the environmental and quality management system international standards. We enhance environmental conservation and improvement of quality by utilizing those certifications as a tool for executing a PDCA cycle, and continue to improve our performance. Our ISO accreditation sector performs an internal audit once a year, and management review twice a year with the aim of system improvement.

### PDCA Cycle

- **Audit & Assessment**  
Auditing performed by our RC promotion departments  
Assessment at Environmental Protection/Safety and Health Conferences
- **Understanding the current status & finding latent problems**
- **Implementation**  
Implementing RC activities using management systems e.g. ISO standards on a department-by-department basis
- **Recording Results & Preparing Reports**



### ISO Certification Status in Dai-ichi Kogyo Seiyaku Group

Business offices and affiliated companies		ISO14001		ISO9001		
		Acquisition of certification	Certification body	Acquisition of certification	Certification body	
Domestic production branches	Our Departments	Yokkaichi Branch	June 2002	JCQA	January 2000	JCQA
		Ohgata Branch	July 2002	JCQA		
		Shiga Branch	March 2002	JCQA		
		Production Control Headquarters	—	—		
		Business Administration Div.	—	—		
		R&D Departments	—	—		
	Affiliates	Yokkaichi Chemical Company, Limited.	March 1999	JCQA	August 1998	JCQA
		KYOTO ELEX CO., LTD.	December 2001	JQA	June 2000	JQA
		DAI-ICHI CERAMO Co., Ltd.	—	—	February 2011	JQA
Overseas affiliates	TIANJIN DAI-ICHI FINE CHEMICALS CO., LTD.	December 2006	ZDHY	August 2001	ZDHY	
	CHIN YEE CHEMICAL INDUSTRIES, CO., LTD.	December 2006	BSMI	April 1995	BSMI	
	P.T. DAI-ICHI KIMIA RAYA	—	—	September 2009	BVI	
	SHUANG YI LI (TIANJIN) NEW ENERGY CO., LTD.	—	—	March 2007	CQC	



# Improving Activities Towards the Targets

We set up the specified activity targets each fiscal year, and conduct the Responsible Care (RC) activities as such. We also continue to launch investment in environmental-related systems and improve activities in this fiscal year.

## Targets and Performance (Dai-ichi Kogyo Seiyaku Group)

### ► Targets and Performance in FY2013

Evaluation ◎: Significant results ○: Results according to targets △: Targets remain unachieved

Target Items	Management Items	Targets in RC Activities	Performance in FY2013	Evaluation	Reference page
Promoting energy saving	Energy consumption per unit	1 % improved compared to FY2012	6.9 % improved compared to FY2012	◎	P17
Reducing GHG emissions	CO <sub>2</sub> (*1)	28 % reduction compared to FY2005 on average from FY2013 to FY2015	27.3 % reduction compared to FY2005 in FY2013	△	P17
Reducing industrial waste	Waste generation per unit	1 % improved compared to FY2012	17.9 % improved compared to FY2012	◎	P20
	Recycling rate	Promoting recycling	88.9 %, 1.0 % decreased compared to FY2012	△	
	Final disposal amount	80% reduction compared to FY2000 in FY2015	73.2 % reduction compared to FY2000	△	
	Final disposal rate (*2)	1 % or less in FY2015	2.4%	△	
Reducing emissions of environmental impact substances	SOx emissions	Emission/discharge control of environmental pollutants in the air	13.6 % reduction compared to FY2012	◎	P18
	NOx emissions		14.9 % reduction compared to FY2012	◎	
	Dust		10.5 % reduction compared to FY2012	◎	
	COD	Emission/discharge control of environmental pollutants in water	23.1 % increased compared to FY2012	△	
	Water discharge		1.7 % reduction compared to FY2012	○	
Proper management of chemical substances	PRTR Law-designated substances	Emission reduction of PRTR Law-designated substances	1.5 % increased compared to FY2012	△	P19
Promoting green procurement		Promoting green procurement ratio of office supplies	13.3 % increased compared to FY2012	◎	—
Eliminating disasters/accidents		No occupational accidents (days away from work)	No accidents occurred	○	P21
		Eliminating severe accidents associated with production facilities	No accidents occurred	○	
Environmental management system		Promoting environmental management system	Maintained	○	P14

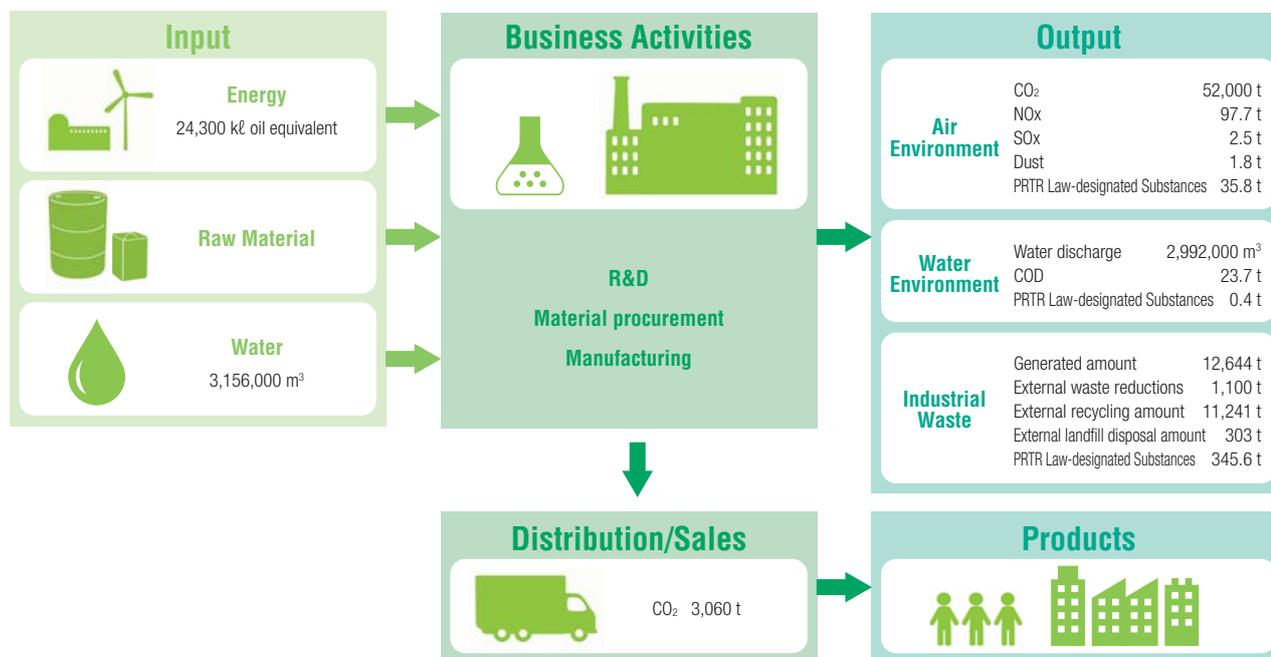
\*1 Derived from energy in production and management sectors. \*2 The rate of Final disposal amount to a waste amount.

### ► Targets and Performance in FY2014

Target Items	Management Items	Targets and Performance in FY2014			
Promoting energy saving	Energy consumption per unit (*1)	1 % improved compared to FY2012			
Reducing GHG emissions	CO <sub>2</sub> (*2)	28 % reduction compared to FY2005 on average from FY2013 to FY2015			
Reducing industrial waste	Waste generation per unit	1 % improved compared to FY2012			
	Recycling rate	Promoting recycling			
	Final disposal amount	80% reduction compared to FY2000 in FY2015			
	Final disposal rate (*3)	1 % or less in FY2015			
Reducing emissions of environmental impact substances	SOx emissions	Emission/discharge control of environmental pollutants in the air			
	NOx emissions				
	Dust				
	COD	Emission/discharge control of environmental pollutants in water			
	Water discharge				
Proper management of chemical substances	PRTR Law-designated substances	Emission reduction of PRTR Law-designated substances			
Promoting green procurement		Promoting green procurement ratio of office supplies			
Eliminating disasters/accidents		No occupational accidents (days away from work)			
		Eliminating severe accidents associated with production facilities			
Environmental management system		Promoting environmental management system			

\*1 Including the electric power consumption rate for demand leveling evaluation, which was introduced by the revised Act on the Rational Use of Energy (enforced on April 1, 2014)  
 \*2 Derived from energy in production and management sectors. \*3 The rate of Final disposal amount to a waste amount.

### ► Environmental Impact Accompanied with Business Activities



## Environmental Accounting (Dai-ichi Kogyo Seiyaku Group)

In FY2013, investment for environmental-related systems was spent mainly for pollution prevention, promotion of energy conservation, and recycling of wastes. Environmental-related costs increased in the fields of pollution prevention. The

economic benefits herein include profits on the actual sales of valuable resources and the amount of cost savings and are not based on estimated economic benefits.

### ► Investment and Costs of Environmental Conservation Activities

Category	Main Activity	Investment (yen in millions)	Costs (yen in millions)
Costs within the plant premises	Pollution prevention Air pollution prevention, water pollution prevention	333.0	482.2
	Global environment protection Energy saving	8.7	171.2
	Resource recycling Resource saving, waste treatment/disposal	6.8	311.1
	Upstream/downstream cost	Lowering environmental impact in containers/packaging	0.0
Management activity cost	ISO acquisition/completing surveillance audit, greening each plant	0.7	54.8
R&D cost	Environmentally-conscious R&D	0.0	493.1
Social activity cost	Providing support grants for environmental protection to environmental protection groups or local communities	0.2	6.4
Environmental damage cost		0.0	0.0
<b>Total</b>		<b>349.4</b>	<b>1,519.5</b>

### ► Economic Effects Generated by Environmental Protection Measures

Items	Activity	Economic Effects (yen in millions)
Profit on sale of valuable resources	Profit on sale of metal scrap, waste oil, and waste alkali, etc.	15.8
Amount of cost savings through energy conservation	Amount of cost savings in electric power and fuels	22.0
Amount of cost savings through resource saving	Amount of cost savings through reduction of water use /waste	6.4
<b>Total</b>		<b>44.2</b>



# Promoting to Reduce Environmental Impact

We promote energy conservation towards global warming prevention.  
We will also control emissions of pollutants and continue to make efforts to reduce them.

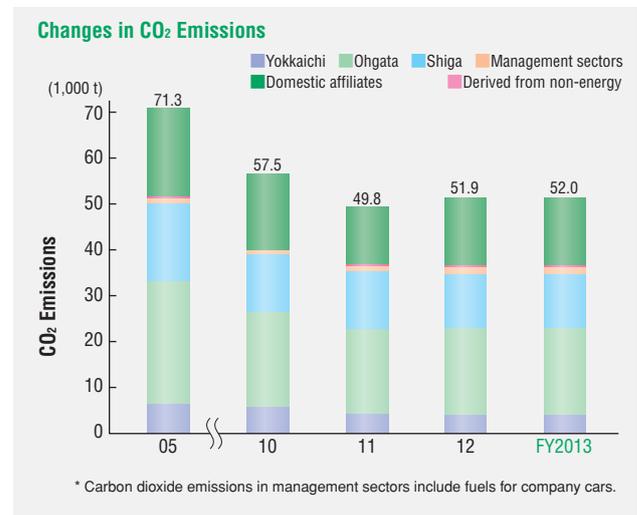
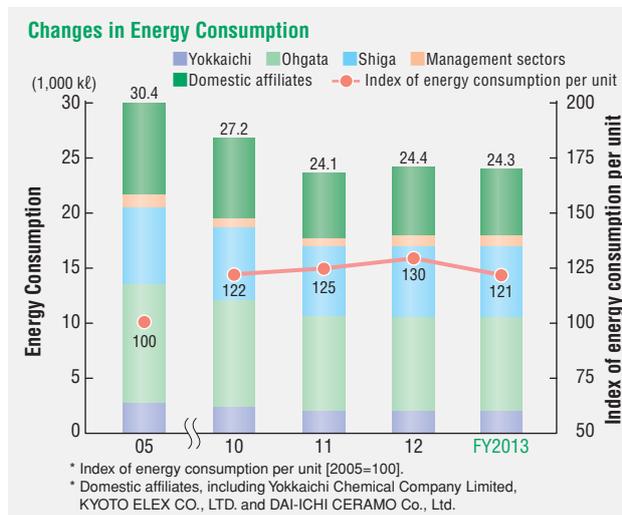
## Global Warming Prevention (Energy Conservation)

Environmental performance data is described based on the calculation with the Dai-ichi Kogyo Seiyaku Group (total values in all domestic affiliates, including Dai-ichi Kogyo Seiyaku Co., Ltd., and Yokkaichi Chemical Company Limited) because we acquired 100 % of Yokkaichi Chemical Company Limited in April, 2011.

### ► Changes in Energy Consumption and CO<sub>2</sub> Emissions

In FY2013, the Dai-ichi Kogyo Seiyaku Group recorded 24,300 kl of energy consumption, which resulted in a 0.4 % decrease compared to the previous year. The energy consumption per unit resulted in a 6.9 % improvement to our target of 1 % compared to the previous year due to a increase in production amounts. CO<sub>2</sub> emissions were 52,000 tons, which increased 0.2 % compared to the previous year because the actual emission coefficient was increased per electric power supplier due to the

operation stoppage of the nuclear power plants. Our medium-term goal is to reduce CO<sub>2</sub> emissions by an average of 28 % from FY2013 to FY2015, compared to FY2005. However, CO<sub>2</sub> emissions were reduced by 27.3% in FY2013, and we could not achieve our target value. We continue to devote our efforts to reducing CO<sub>2</sub> emissions towards our medium-term goal of FY2013 to FY2015 through activities to improve energy efficiency.



### ► Efforts in Logistic Sectors

We outsource our logistic business for our products to external freight companies. We transport products by truck, rail, and ship, but the truck transport is most frequently used because it can instantly respond to the customers' desired delivery date.

Related to environmental impact activities, we have been fulfilling our role as a specified shipper under the Energy Saving Act to tackle the challenges of reducing impacts on the environment. The freight volume increased by 0.7 % in FY2013, but there were no changes in energy consumption and we achieved a 0.3 % reduction of GHG emissions by promoting modal shifting. Furthermore, we achieved a 0.7 % improvement in the energy consumption per unit. Environmental impact reduction in logistic sectors plays an important role not only in the aspect of global warming countermeasures, but also in effects on air pollution and/or waste generation. In the future, we will continue to move forward with our activities by promoting further modal shifting, and by making efforts to

achieve a 1 % improvement in the energy consumption per unit compared to the previous fiscal year, which is specified in the goals of the Energy Conservation Law, through increase of loading rate for reserved services, and reduction of transporting of returned products. In addition, we share environmental impact activities with our logistics partners and continue to pursue better results year by year while implementing these activities by executing the PDCA cycle.

### Environmental Impact to be Reported as a Specified Consigner

Items	FY2013	Comparison to the Previous Year
Freight Volume	31,446,000 ton-km	+0.7 %
Energy Consumption Amount	45,358 GJ	±0.0 %
Energy Consumption per Unit	1,442 GJ/1000 ton-km	-0.7 %
CO <sub>2</sub> Emissions	3,060 t-CO <sub>2</sub>	-0.3 %

\* Calculated using the Improved Ton-Kilometer method, excluding the Yokkaichi Chemical Co., Ltd.

### ► Efforts to Power Saving

We continued to make efforts on power saving in FY2013, in order to take measures against power shortages due to the operation stoppage of the nuclear power plants.

As for approaches for the entire company in general during the "Cool Biz" campaign period (May to October), we suppressed the set temperature of air-conditioning equipment, reduced the use of excessive lighting and turned off lights during unnecessary hours. At our Kyoto Central Branch (Head Office/Laboratory), we have installed a demand control system that showers air-conditioner outdoor units and reduces peak power usage in

summer.

At our Yokkaichi Branch, we cleaned and maintained cooling towers with the aim of reducing power consumption. At our Ohgata Branch, for power generation we introduced a new generator that uses methane gas generated during wastewater treatment. We will supply the generated electric power to electric companies by using the renewable energy feed-in tariff system.

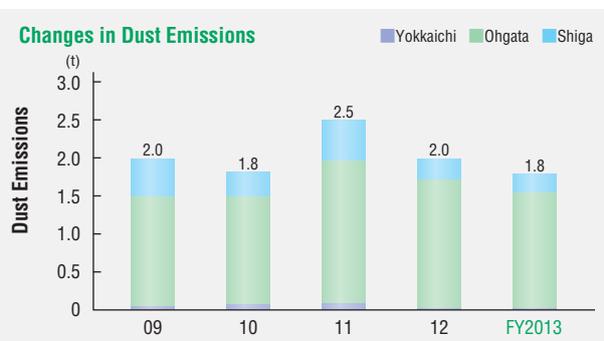
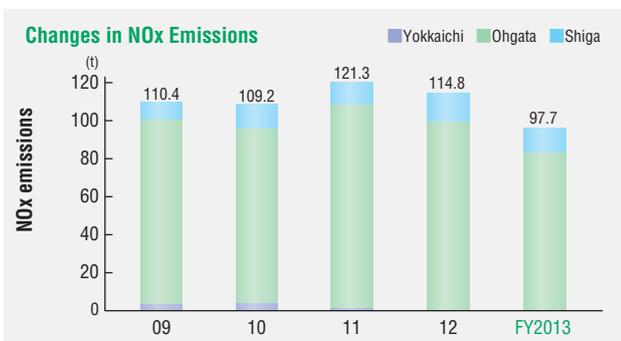
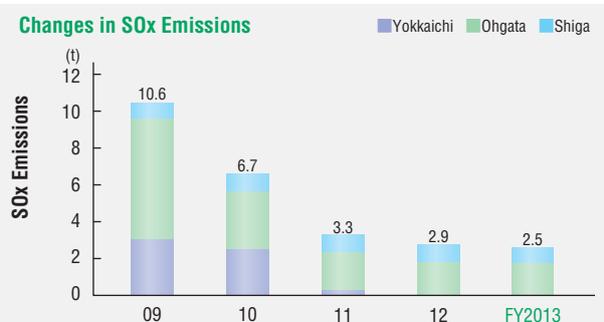
We continue to address power saving in FY2014.

## Efforts to Reduce Emissions of Chemical Substances

### ► Air Pollution Prevention

Related to reduction of air-pollutant emissions in FY2013, we achieved a 13.6 % reduction of SOx emissions, a 14.9 % of NOx emissions, and a 10.5 % of dust emissions compared to the previous year through operation adjustment of the facilities based on the efficient production plan. We will continue to pursue more energy efficient operation techniques.

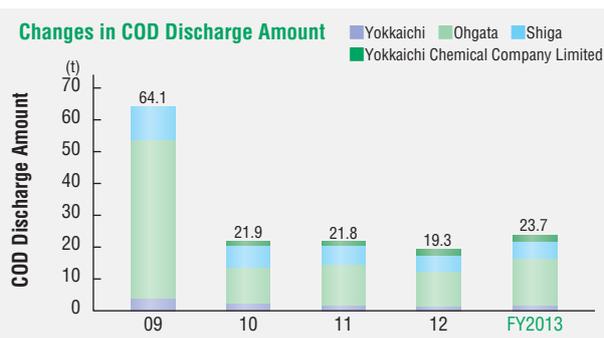
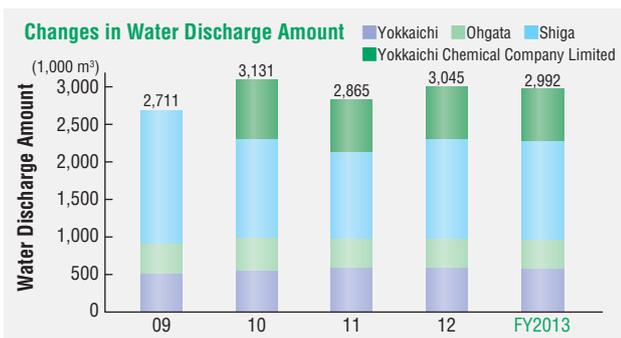
Note that the Yokkaichi Chemical Company does not have any facilities related to SOx, NOx, and dust generation.



### ► Water Pollution Prevention

In FY2013, the Dai-ichi Kogyo Seiyaku Group recorded 2,992,000 m<sup>3</sup> in the amount of water discharge, which was a 1.7 % reduction compared to the previous year. The COD discharge amount was 23.7 tons, which was a 23.1% increase compared to the previous year. We will continue to make

efforts to reduce the water and COD discharge amount by improving our production processes and effluent treatment facilities, as well as reviewing the cleaning methods of production facilities.



## Voice from the Person in Charge



Plant Administration Section  
KOBAYASHI Hideki

### Water pollution prevention activities at Shiga Branch

Wastewater is treated using the activated sludge process in the Shiga Branch. We maintain and manage it based on continuous automatic measurement monitoring and correction of such measuring equipment based on the Water Pollution Prevention Act, prefectural and city ordinances, and the pollution prevention agreement. Our Shiga Branch has the largest amount of water discharge among other branches. We are tackling our daily tasks with the recognition that stabilization of wastewater treatment facilities and regular conservation activities are of utmost importance. Our activities during the last few years focused on identifying chemical substances that have adverse effect on biological treatment and recycling them as wastes, expanding aeration tanks, unifying the supply of wastewater load using process analysis, and reviewing management standards. As a result, we were able to stabilize the quality of treated water as well as reduce COD emissions. Not limited to water quality, we will continue to reduce environmental impact through our business activities by first following environmental laws and regulations.



# Reduction of Waste and Chemical Substances

We have been devoted to the reduction of waste and chemical substances.

We promote our activities based on the rules to regulate proper management of chemical substances.

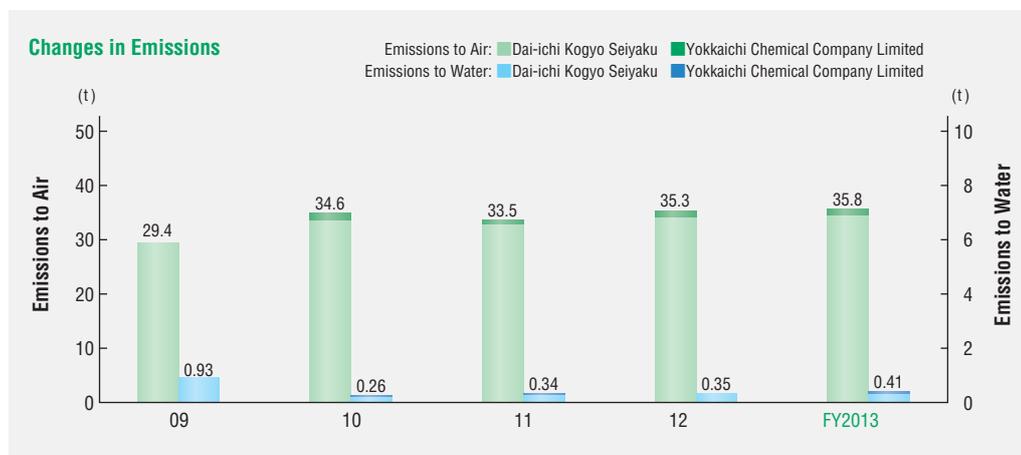
## Efforts to Reduce Emissions of Chemical Substances

### ► Emissions of PRTR Law-designated Substances

The Dai-ichi Kogyo Seiyaku Group had a total of 63 notification substances under the PRTR Law in FY2013. The total amount of emissions was 36.2 tons, which resulted in a 0.5 ton increase compared to the previous year. The breakdown was 35.8 tons to air, 0.41 tons to water, and none to land.

The amount of waste transfer recorded was 345.6 tons, a 35.6 ton increase compared to the previous year (11.5 % more) due to increase in production

amounts and changes in product composition, despite the use of recycled Toluene, etc. Through changes in production techniques, improvement of production processes and the introduction of recovery equipment, we will continue making efforts to reduce the emissions/discharge of PRTR substances into the environment.



\* The results between FY2010 and 2013 show the total amount for the Dai-ichi Kogyo Seiyaku Group and the Yokkaichi Chemical Company Limited.

\* For the emission amount of notification substances under the PRTR Law in FY2013 (among all notification coverage substances, those of which the emission or transfer amount was 0.01 tons or more), please visit our webpage.

<http://www.dks-web.jp/download/rc.html>

## Chemical Substance Management

We set forth the "Chemical Substance Management Regulation" with the aim of global environment protection, accident prevention, occupational safety, health assurance, as well as product safety. Based on this regulation, we promote "proper management of chemical substances over the product life cycle." We have been making control regulations related to the understanding of chemical substances in use as well as their amount,

substitute/reduction of harmful chemical substances, improvement of ambient environments, and control of chemical substances contained in products (Green procurement). We categorize our chemical substances into three classes based on domestic and international laws, global agreements, and requests from customers, and we define the control descriptions for each class.

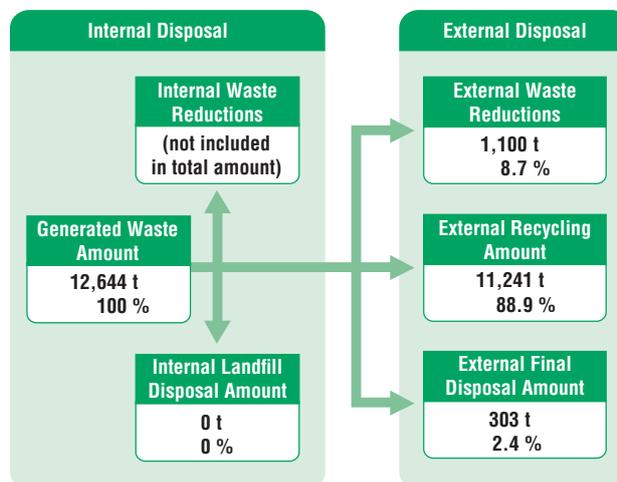
### Class and Description Related to Chemical Substances Management

Class		Description
Class A	Substances to be prohibited	Chemical substances prohibited to use on products
Class B	Substances to be reduced	Chemical substances for which complete abolishment would be preferable from an environmental aspect, and those for which the formula contained in products needs to be changed.
Class C	Substances to be controlled	Chemical substances for which the amount in emissions or transfer needs to be reduced, those that need to be recycled, and those for which the above substances in Class A and Class B are excluded.

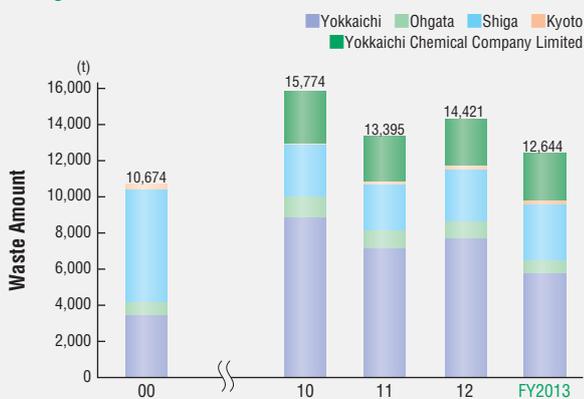
## Efforts to Reduce Waste

The amount of waste generation in FY2013 recorded was 12,644 tons for the Group, which was a 1,777 ton reduction compared to the previous year (12.3 % less). The waste generation per unit in production amounts (target: 1 % improvement compared to the previous year) was drastically decreased by 17.9 % due to increase in production amounts. The external recycling rate was 88.9 %, a decrease of 1.0 % compared to the previous year.

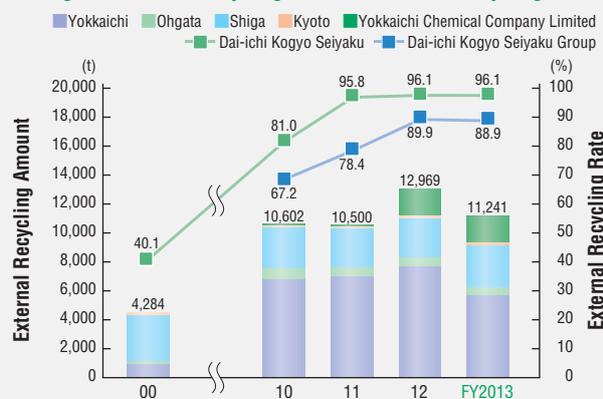
The final disposal amount (target: 80 % reduction compared to FY2000 in FY2015) recorded was 303 tons, an increase of 25 tons compared to the previous year. This result was equivalent to a 73.2 % reduction compared to FY2000. In addition, the final disposal rate to the amount of waste generation was 2.4 %. To achieve the target of the final disposal rate of 1% or less as in FY2015, not only the Ohgata Branch, with a large amount of disposal, but each branch is making efforts to reduce the final disposal amount. Furthermore, we continue to push forward the 3R (Reduce, Recycle, Reuse) activities by improving our production processes and reviewing our treatment measures to use resources effectively.



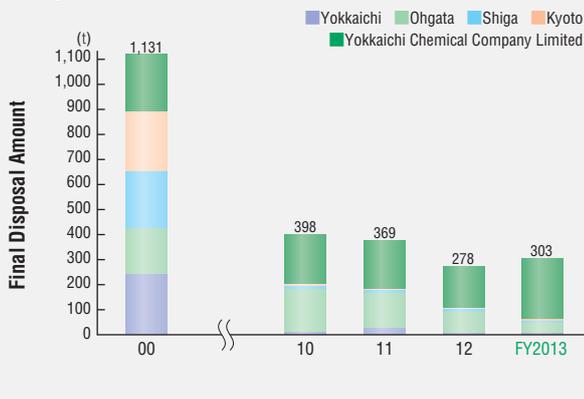
Changes in Waste Amount



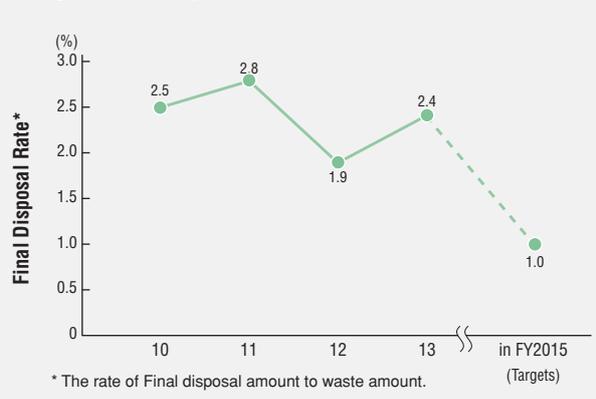
Changes in External Recycling Amount & External Recycling Rate



Changes in Final Disposal Amount



Changes in Final Disposal Rate



\* The rate of Final disposal amount to waste amount.

### ► Environment-related Complaints

During FY2013, we received two complaints about the noise from the neighborhood. We took emergency measures and recurrence-prevention measures in each case.



# Ensuring Safety, Process Safety and Disaster Prevention

We strive to secure a safe and comfortable working environment. We also engage in conducting emergency drills just in case of emergency events.

## Efforts in Occupational Safety

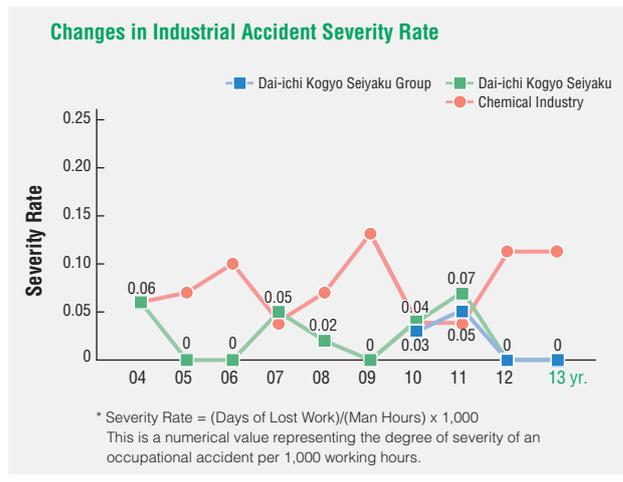
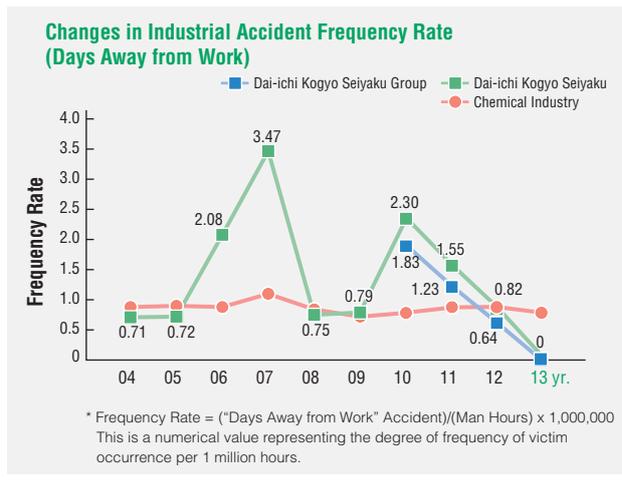
We recognize that ensuring security is the foundation for effective management and plays a fundamental role in any business activity. Taking safety first and the respect of human life and dignity as our basis, we have been making efforts to eradicate the potential for and occurrence of occupational accidents. Furthermore, in order to ensure a safe and comfortable working environment, we have been promoting the "5S" activities (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke in Japanese). In FY2013, we had no "accidents with lost work days" cases and, therefore, achieved our target of zero accidents in the Dai-ichi Kogyo Seiyaku Group.

For the case studies of accidents, after analyzing the cause of the accident, we try to laterally disseminate the findings and solutions throughout all sectors and departments to prevent a similar case from occurring again. In addition, we have been placing significant emphasis on periodic implementation of preventative measures and safety patrols by the managers concerned in order to locate unsafe working conditions and operations that may exist. Moreover, we continue to conduct activities related to risk prediction, pointing and calling, risk assessment, and experience-based safety education, and we aim for the actualization of zero accidents.

### Industrial Accident Frequency Rate (AFR) & Industrial Accident Severity Rate (ASR) (From January 1 to Tuesday, December 31, 2013)

The industrial accident frequency rate (accidents with lost work days) of the Dai-ichi Kogyo Seiyaku Group declined gradually from FY2010, and it became zero because no "accidents with lost work days" cases occurred in FY2013.

We continue to further enhance our conventional safety activities in order to achieve the industrial accident frequency rate of zero in FY2014.



### ► Experience-based Safety Education

To improve awareness concerning occupational accident prevention, we started experience-based safety education in FY2010 and have incorporated it in the Production Department training in FY2013. Raising the improvement of safety awareness on a daily basis as an assignment, we provide this education program so that participants have the opportunity to sense the danger of accidents through pseudo experiences. In detail, these exercises using pseudo-experience devices include solvent explosions, getting caught in rollers and pipe pressure. These exercises are designed to raise the awareness concerning the various potential risks. Some of the comments from participants upon finishing the training

include: "The power of even small devices are strong, allowing me to see the real danger of large equipment." and "My awareness towards accidents has increased by actually seeing and experiencing them for myself." With such comments, the training has proven to be effective in accident prevention.

We would like to continue educating the importance of safety knowledge and stable operation through education and training as well as implement pseudo-experience education to heighten safety awareness among individuals.

### ► Efforts to Distribution Safety

We are outsourcing our logistics business related to storage and transport of our products to an external freight companies. Under the spirit of Responsible Care, the entire Logistics Department is working as one with cooperating outsource companies to secure safety of transport and environmental protection as well as guarantee quality service of transport to our customers. With the aim of eliminating transportation accidents in particular, we periodically perform conference activities using the following documents as useful tools to provide not only all available information but

also proper education and instruction for our logistics partners: "Safe Driving and Maintenance of Traffic Order," "Revised Laws and Regulations," "Safety and Environmental Standards for Delivery Services," and "Transport Specifications." In addition, we instruct drivers to keep the Yellow Card (emergency contact card during product transportation) with them during transportation of chemical products, and have developed a label-type Container Yellow Card system by indicating the Emergency Response Guidebook (ERG) number and UN number on the product label.

## Efforts to Process Safety and Disaster Prevention

### ► Preparation for Emergency

Just in case emergency events such as a fire/explosion, earthquake, leak, and/or power outage occur, we have established a security and accident prevention system for each branch, and conduct emergency drills according to the annual program. We also collaborate with local communities and organize joint emergency drills, such as with local fire

departments.

In order to prevent accidents and disasters inherent in chemical manufacturers from occurring, we intend to take measures based on the risk assessment of hazardous properties, such as the potential hazard, and make efforts to prevent disasters, such as fire and/or explosions.



Kyoto Central Branch



Yokkaichi Branch



Ohgata Branch



Shiga Branch

### ► Funding for Process Safety and Disaster Prevention Measures

The FY2013 funding for our security and disaster prevention measures was 238.6 million yen. This funding was mainly allocated to explosion, fire, and leak prevention measures; mitigation measures for aging facilities; and occupational safety and working environment improvement measures.

## Voice from the Person in Charge



Plant Administration Section  
MIZUSAKI Kenzo

### Approaches to occupational safety and disaster prevention at our Shiga Branch

At our Shiga Branch, we are conducting the KYT (risk prediction training) at each workplace on a daily basis to improve the capability of sensing potential that surrounds the workplace. Then we select several issues from the KYT and share information through debate in the Safety and Health Committee meetings. In the monthly Risk Assessment Committee, we secure an independent budget, extract and assess risks as well as examine measures, and evaluate measures that have already been implemented. We promote these activities using independent-minded employees. Concerning the evacuation and accident prevention drills held three times a year, we encourage not only our employees but also suppliers working within the workplace to actively participate in the drills. We also put focus on first-aid fire fighting using water-based fire extinguishers.



# Activities Open to Local Communities

To show our efforts to the public, we transmit information via various media, make presentations in exhibitions, as well as actively engage in local activities based in each branch.

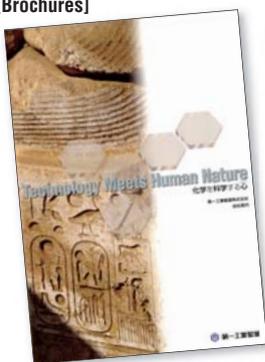
## Information Transmission Tools

### ► Transmission Information

For the purpose of providing our stakeholders with accurate and useful information on our company, we publish brochures such as our company's prospectus our Magazine for Public Relations titled "TACT", and our Social Activities Reports as "Environmental and Social Activities Report" (this document), for instance. Our web page also offers not only this information but information such as that of our technologies, products, and employment. In addition, we have offered a series of our Social Activities Reports as "Environmental and Social Activities Report" (this document) since FY2006 on our web page.



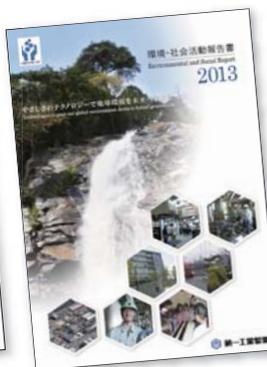
### [Brochures]



Corporate Profile



Environmental and Social Report



Magazine for Public Relations "TACT"



### ► Exhibition Presentations

During FY2013, we made presentations at the following exhibitions.

June 2013	The 19th research convention concerning groundwater/soil pollution and its prevention measures at Kyoto University DAI-ICHI CLEAN CHEMICAL, INC. introduced AMENICLEAN/AIR CHEM
September 2013	The 15th CHINA INTERNATIONAL OPTOELECTRONIC EXPO 2013 DAI-ICHI CERAMO Co., Ltd. introduced Zirconia compound
November 2013	The 11th Leading Industry Exhibition Mie 2013 at Yokkaichi Dome Introduced Cellulose single nano-fiber (CSNF)

### The 15th CHINA INTERNATIONAL OPTOELECTRONIC EXPO 2013

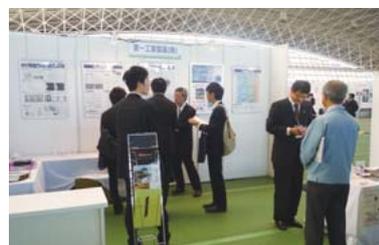
DAI-ICHI CERAMO Co., Ltd. introduced PIM (power injection molding) compounds jointly with their agencies in CIOE2013 held in Shenzhen, China, which was the world's largest exhibition related to optical communications.

A zirconia compound is used for the ferrule material that is a connector component for optical communications. Many people visited our booth, which made us realize the high level of interest in our product.



### The 11th Leading Industry Exhibition

The Leading Industry Exhibition Mie is a place where highly-motivated companies and research organizations leading various industrial sectors gather to create new businesses through collaboration and cooperation. We transmitted information regarding the direction of business in the Yokkaichi district to the government, local companies, research organizations and students. We introduced three companies including Dai-ichi Kogyo Seiyaku, Yokkaichi Chemical Company Limited and Elexcel Corporation, as well as our new business of cellulose single nano-fiber.



## Relations with Society & Local Communities

We are moving forward with contributions to society by making use of resources of our Group. We are devoted to various local activities including joint activities with industry groups, acceptance of plant visits, neighborhood cleanup activities and social activities such as participation in community events. Each branch holds a consultative meeting with other companies in order to promote local communication.

### ► Communication with local communities

As part of information disclosure and communication with local people in the neighborhood, we create opportunities to explain our approaches and business activities concerning environmental protection and safety measures at our branch, to local people in the neighborhood community association. We also make use of this opportunity to listen to their opinions and proposals about risks associated with the chemical plant, as well as information exchange. In addition, we explain our approaches to the administration, as well as implementing joint activities with local committees.

Cooperating with the "knowledge" promoters of companies implemented by the Minami-ku of Kyoto, we introduced various offices to the citizens and provided a course and hand soap making class under the theme of "Chemistry that Surrounds Our Daily Lives." The event was participated by 35 persons, ranging from elementary kids to parents and even the elderly. After explaining about our products and research laboratory in the exhibition room, they enjoyed learning chemistry through experiments on how detergent removes dirt and making original soap. This was the perfect opportunity to directly communicate with the local community.



Patrol by local communities (Shiga Branch)



Resident exchange meeting (Kyoto Central Branch)

### ► Activities in Industry Groups



Outstanding Electrical Safety Award (August 29, 2013)

On August 29, our Kyoto Central Branch was recognized for its continuous safety and security performance and energy-saving measures by the Kansai Electric Safety Association. For the first time, we were awarded the "Outstanding Electrical Safety Award" for significant improvement and maintenance of electrical safety.

Our Kyoto Central Branch was recognized for its appropriate electrical load management, reduction of power use and CO<sub>2</sub> emissions as a result of installing a demand controller in 2008 and continuous increase of load suppression devices. Especially in terms of electricity-related accidents, we have been accident free for 47 years.

### ► Neighborhood Cleanup Activities and Participation in Community Events

We actively participate in local events as activities that are close to the local areas. Our Yokkaichi Branch joins the Yokkaichi Minato Festival every year, and Shiga Branch and Ohgata Branch regularly engage in cleaning activities in the neighborhood as volunteers.



Cleanup of the Uryugawa River (Shiga Branch)



Cleanup of the Coast (Ohgata Branch)



Yokkaichi Minato Festival (Yokkaichi Branch)



# Fulfilling Our Social Commitments

We develop our activities to bring up and support children, the leaders of tomorrow, through activities such as lecturing to elementary and junior high school students, acceptance of students for internship, and field trips that include on-hand experience learning. We build and operate the Quality Assurance system, as well as provide product information to customers.

## Relations with Society & Local Communities

### ▶ Lecture Delivery for Local Communities/Elementary and Junior High School Students

We give lectures for elementary and junior high school students with the intention of making opportunities for them to take interest in the fun of chemistry and environmental issues. We do this with simple explanations of the base knowledge of chemical materials. We encouraged each student to make an experiment using the familiar chemical product detergent, and to understand why detergent can remove dirt, allowing them at the same time to experience the fundamental effects of surfactants. Through our lectures, we gave opportunities for the students to consider effective uses of chemical materials, as well as the importance of water.

We conducted lectures to the fourth grade students at Noso Elementary School (Kyoto City) in September 2013, and second grade students at Minato Junior High School (Yokkaichi City) in February 2014. We joined the event titled "Science is fun! Learn about the environment and manufacturing!" at the Yokkaichi children's scientific workshops (organized by the city education committee) in August 2013. We practice the class in an easy to understand way for people to enjoy studying their familiar chemical products, using our know-how and experience accumulated through our business.



Lecture Delivery (Kyoto city)



Lecture Delivery (Yokkaichi city)



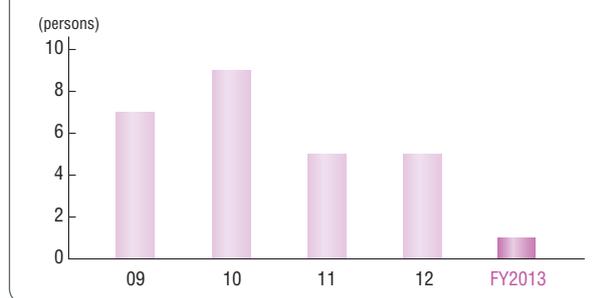
Yokkaichi child scientific workshops

### ▶ Internship & Learning through Work

We have accepted students for internships, and over the years many technical college students have participated in our internship programs. For one or two weeks during their summer holidays, we have participants experience practical work in our workplaces, such as in our laboratories, quality control department of each branch, etc. In order that they understand our actual business operations and services, we are devoted to reviewing and improving each of our programs so that interns can really feel "the meaning of work" during this short period.

We believe that accepting students for internships will help them not only to expand their occupational awareness and improve their business ability, but also to promote their understanding of workplace relationships and effective information exchange while communicating with their schools. In addition, we cooperate in terms of experience learning of our business operations, as well as occupational interviews concerning the company and work upon requests from neighborhood schools.

#### Acceptance of Technical College Students for Internship



Internship (Shiga Branch)



Workplace Experience (Ohgata Branch)



Workplace Experience (Shiga Branch)



Occupational Interview (Ohgata Branch)

## Relations with Our Customers & Business Partners

### Quality Assurance (QA) System

Our group has acquired the ISO9001 certification through a third party and introduced the quality management system based on the required standards. Under this system, we build and operate the QA system. We constantly strive to clarify the quality assurance process, as well as assigned roles, duty and authority in each QA department under our QA system in order to implement in-depth quality control (QC) and provide accurate product information while responding to product complaints in a quick and faithful manner. We have always been devoted to providing products that are safe for use.

We establish the quality-related management standards over the whole of the processes, from product planning to customer service via

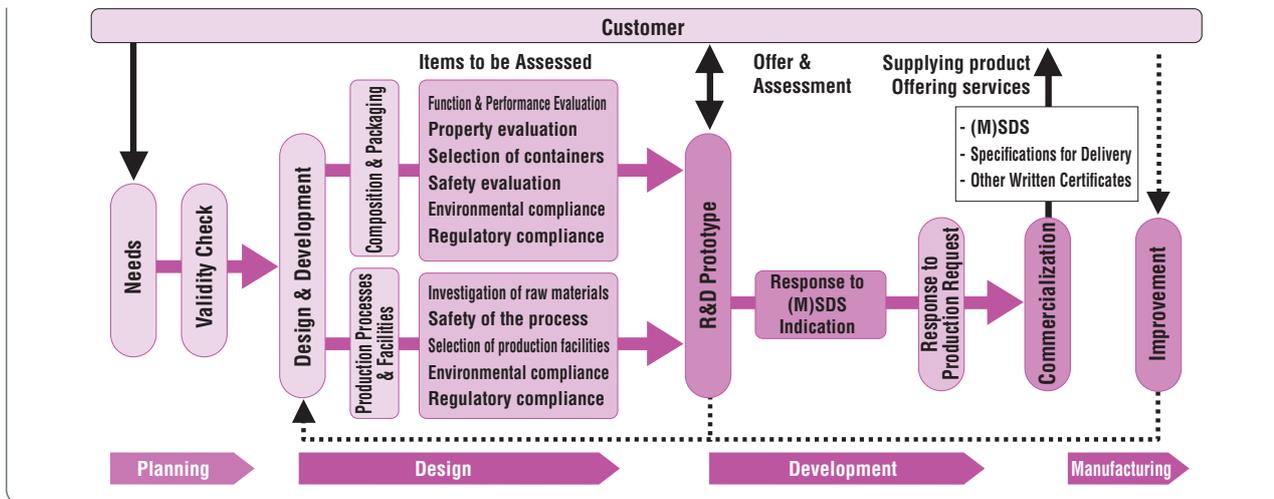
### ► Process for New Product Development

When trying to develop products, suppliers must take into account a variety of aspects of the customers' needs in an accurate manner. We perform QA activities by checking and assessing the progress from multiple viewpoints, so that regulatory requirements, environmental and security requirements,

design/development, manufacturing, and sales. Toward the realization of "Customer First," which is one of our management principles, we define the following Quality Policy, and continue to make efforts for improving our work in order to upgrade quality in our products and service.

- (1) We will strive to design a product with high quality to meet customers' expectations and to supply a highly reliable and safe product before the due date requested by the customer, and at a reasonable cost.
- (2) We will pursue higher quality in our products and continue to improve the effectiveness of our Quality Manual in order to maximize customer satisfaction.

and production, distribution, and industry property can be secured for all of the following processes: planning, designing, developing, and manufacturing.



### ► Provision of Product Information

We provide various product information as an opportunity for (prospective) customers to better understand our products. We always respond to requests and inquiries from our customers quickly and adequately in good faith. For the purpose of introducing our existing products and/or new products, we strive to be in close communication with customers and business partners, not only through our everyday business negotiations, but also with our brochures and technical documents.

We have been providing material safety data sheets (M)SDS for chemical substances of all our products and answering inquiries about environmental burden substances and/or the relevant laws and regulations. We update sequentially our (M)SDS and GHS-compliant label indications according to the revisions of the Industrial Safety and Health Law, the Pollutant Release and Transfer Resister (PRTR) Law, and the revisions of the Japanese Industrial Standards (JIS).



Product Brochures



# Aiming for Management that Responds to the Expectations of the People

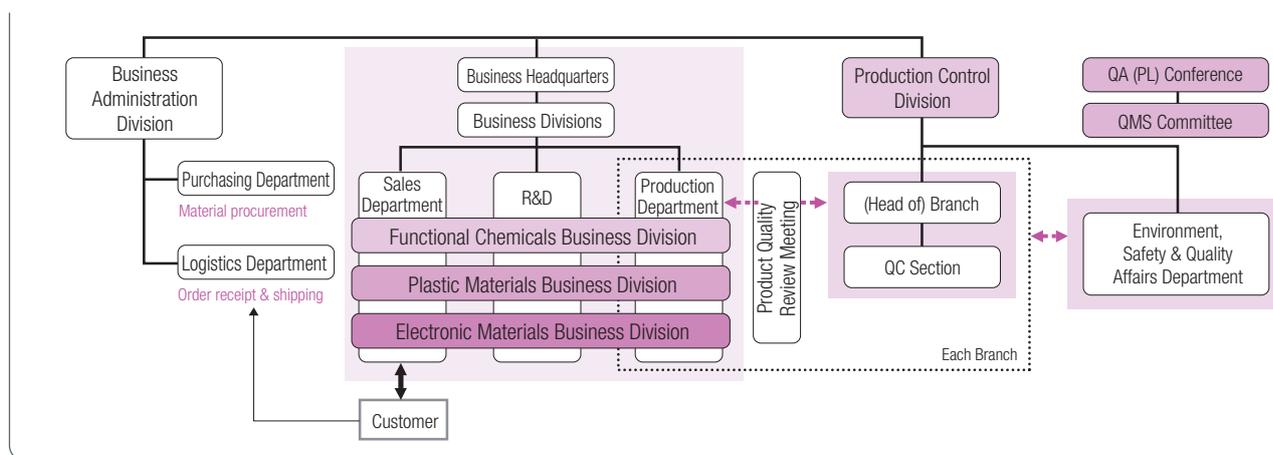
We conduct quality management, and respond to product complaints in a quick and faithful manner. We regard the shareholder meeting as an important opportunity for meaningful communication.

## Relations with Our Customers & Business Partners

### ► Quality Management System

We operate ISO9001 as a basic tool for our quality management activities. We accept all information related to quality, from customers through sales representatives, and/or directly in the QC section of each branch. Under this system, we unify management and promptly respond to quality-related information. Every month the QC section and Production Departments hold a product quality review meeting in order to maintain and improve quality, as well as decrease any defects. We use

our PDCA cycles in the quality assurance management system to review and promote improvement and/or advancement measures. In the Quality Assurance (PL) conference, we deliberate the issues brought up from the QMS Committee, and summarize management reviews to examine how the quality management system is suitable, adequate, and effective.



### ► Response to Complaints and Quality Defects

Product quality complaint management is our top priority to assure stable product quality. Therefore, we have established our internal Procedures for Handling Product Complaints. We specify procedures to deliver information from the sales department which receives information from customers to the QC section and relative departments at each branch, and deal with quality-related complaints according to these procedures. Our policies for handling product complaints focus on the following practices: maintaining credibility by responding quickly and in good faith, thoroughly probing the cause of the complaint, and taking preventive

measures and recurrence prevention measures. We share quality defect and complaint information through the network, and conduct progress management while setting the goals to reduce the number of complaints and quality defects. In order to deal with abnormal events, we clarify the root cause using our analyzing method (" Why-why analysis") and implement recurrence prevention measures. In addition, each branch implements the pointing and calling method thoroughly, and conducts a product quality inspection patrol to improve product quality.

### ► Product Liability (PL) Policy

We established our Product Liability (PL) Prevention & Management Procedures and PL Accidents Prevention System to ensure the safety of our products and to prevent product safety accidents from occurring. Our fundamental policy is to secure the maximized product safety over the

whole processes consisting of R&D, manufacturing, and consumption, and the final disposal, as well as to develop, manufacture, and sell products with higher safety and reliability, and to offer customer services for them.

### ► Partnership with Our Dealers

We are conducting sales activities with the cooperation of distributors by searching needs and seeds built between our company and customers and strengthening sales methods that demand solution to problems. We are strengthening the sales of solutions by expanding our pipes for each field with Zenkoku Ichi-Ko Kai (DKS National Dealers Meeting) agencies composed of main sales agents and distributors.

In the FY2013 Zenkoku Ichi-Ko Kai, we explained our business performance, medium-term management plan and a summary of the Yokkaichi district realignment. We promote communication activity with our dealers, such as information exchange, in order to realize mutual prosperity based on our trusting relationship.



Zenkoku Ichi-Ko Kai (DKS National Dealers Meeting) in Kyoto

# Relations with Our Shareholders & Investors

## ▶ Shareholder Meeting

We regard the shareholder meeting as an important opportunity to foster communications between shareholders and management. 90 shareholders attended the annual shareholder meeting in 2013. After the meeting, Chairman, Mr. Sakamoto, had the briefing session titled "To our



Shareholder Meeting

shareholders of chemistry to respond to people's needs," followed by a shareholders get-together with top management. We had meaningful exchanges of opinions with our shareholders in a relaxed and friendly atmosphere.



Get-Together of Shareholders and Top Management

## ▶ Information Disclosure

Based on fair and timely disclosure to our investors, we disclose information using the Timely Disclosure Network (TDnet) provided by the Tokyo Stock Exchange and mass media (such as Japan National Press

Club). Our website provides IR information such as earnings summaries, shareholder letters, securities report as well as notice of calling of shareholder meetings, corporate information and press releases.



Our company's website  
IR Information <http://www.dks-web.jp/>



Shareholder letters



Press Release



# Fostering Full-Fledged Employee/Corporate Member of Society

We organize our employment system in response to the demands of the times so that all employees can progress respectively, and launch enhanced programs related to human resource development and education.

## Relations with Our Employees

Our company recognizes that our employees are our greatest asset and that the growth of each individual employee will support the growth of our company. To assist each of them in becoming a full-fledged employee/corporate member of society and gaining a sense of accomplishment and satisfaction from their work, we have been devoted to protecting the human rights of our employees and improving various human resource systems, human resource development and education, and working environment development.

### Our Company's Human Resource Philosophy

Our fundamental human resource philosophy is rooted in the idea that our people are our greatest asset and must be nurtured and treasured. We believe that by putting our belief into practice the growth of each individual employee will support the growth of our company and will allow our employees to be active, to grow, and to realize their potential in each workplace. This will help them in not only achieving their self-actualization but also serving as a driving force for further developing of our company, as well as making the company's presence permanent.

### Human Resource Development Policies

In order to foster people who can fully understand our company's management philosophy and the management policies based thereon and can contribute to the realization of such philosophy and policies, we require that our employees have the following basic skills and attitudes:

1. Profound expertise, technique, and broad vision
2. Energetic attitude and behavior
3. Flexibility in thinking
4. Fruitful in terms of creativity

### ► General Business Owner Action Plans

Our company has established General Business Owner Action Plans, which are intended to help our employees balance their careers and child-rearing. These action plans have been shared with the public and within the organization.

### General Business Owner Action Plans (summary) (From April 2010 to March 2015)

- Target 1: Familiarizing our employees with our child-rearing support system and enlightening them
- Target 2: Implementing measures to reduce overtime work
- Target 3: Implementing measures to promote taking annual paid leave
- Target 4: Performing community contribution activities related to children and child-rearing practices
- Target 5: Expanding opportunities to obtain working experience including internship

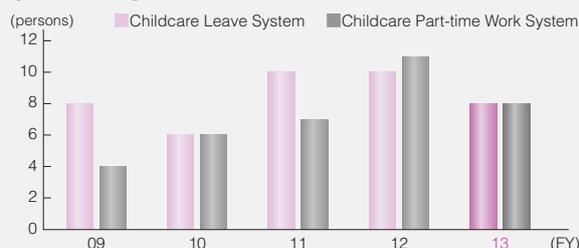
### ► Our Personnel System

#### ■ Employment System

In response to the declining birthrate and aging society, and in order to promote a healthy work/life balance, we have developed the following personnel systems, each of which takes into account employees' child-rearing and nursing care. We discussed the period extension of child-rearing short-time work in the union-management consultation, and have implemented it since FY2013.

- Childcare Leave System
- Childcare Part-time Work System
- Nursing Care Leave System

#### Number of Employees Who Have Used the Personnel Systems During the Last Five Years



#### ■ Retiree Reemployment System

We have introduced a reemployment system for our company's retirees since FY2006. By drawing on their many years of skills, techniques, and experience, they still remain active as "senior challenge staff."

We have changed our system according to the law revision since FY2013.

#### ■ In-house Achievement Award System

Through our employee incentive programs, we have been running not only a performance incentive system such as patent and personal achievement awards (twice per year), but also Division Manager's and length of service awards.



FY2013 First Half Achievement Award Winners

#### ■ Efforts to Prevent Harassment

As for activities to prevent sexual, power, and moral harassment, we provide related education programs in hierarchical training courses, and take care of any (alleged) harassment incidents by established contact points.

## ▶ Human Resource Development & Education

We recognize that the growth of employees lead to the advancement of our company. To realize this human resource philosophy, we are promoting human resource development and education programs.

In programs for our employees, we focus on three pillars of in-house education (OJT) through work, external education (OFF-JT) of skills and abilities necessary for performing tasks and self-enlightenment support. In addition, we are dedicated to supporting voluntary capacity building of

our employees by providing them with in-house lectures and briefing sessions. We renovated the former Head Office in Shichijo Sembon, where the company was founded, as a training facility to provide education. We have introduced correspondence education courses and a support system for obtaining qualifications to promote capacity building of our employees through self-enlightenment.

## ▶ Education Training System

Since FY2011, we have reviewed our past training programs and contents to improve managerial skills and human resource development. Then we established the new education training system. In order to enrich our

programs, we have especially added programs for the training course by position and department training for external education.

On the Job Training (OJT)		On the Job Training (OJT)						
		Training course by position	Department training					Self-development support program
			Research	Sales	Production	Management	Common	
Director	Management workshop							
The management	Corporate manager development training	Development training for research management (post)		New sales staff training		Accounting training (advanced)	Mental health care education	
	Fifth-year management post training							
	Third-year management post training							
	Accounting training					Domestic study program		
	Coaching practice training							
	New manager training			Practice and application of sales business				Staff dispatching to outside conferences or seminars
General staff	Advanced Professional Training	Engineer training Safety and health education *1			Experience-based safety training	Compliance Education		
	Professional Training							
	Third-year training						Brother and sister system *2	
	Follow-up training			Skills improvement training				
	Workshop practice			Follow-up training				
	New employee training			Freeman training				
					English conversation class for beginner/advanced levels			
					Support for the TOEIC examination			
					Support system for obtaining qualifications			
					Correspondence education courses/e-learning			

\*1: LT (Logical thinking)

\*2: Brother and sister system: The system which a young senior colleague and a new employee make a pair, and a young senior colleague undertakes the guidance of the way of advancement of the work one-to-one.



Third-year management post training



Correspondence education courses



Experiment planning method

### Voice from the Person in Charge



Personnel Section MATSUYOSHI Kenichi

We have entered our third year of personnel training and education based on the new education/training system. In FY2013, we made efforts so the trainees surely gain the necessary skills through the Brother & sister system where young senior colleagues train new employees, and the education training course by position where issues are set before and after training. I believe both of these programs benefit in major growth of our employees.

My goal is for each department to raise human resources that bear the future as well to be recognized from the outside as a top industrial chemical company with a high level of employees. To realize my goal, I will strengthen training of young employees in FY2014.



# Expanding Opportunities of Our Own Activities

We promote such employee-centered efforts as meeting for presentation of research results, and improvement activities with the participation of all employees.

Furthermore, we conduct regular health checks and have mental health care programs to support our employees' health in both body and mind.

## Relations with Our Employees

### ▶ DKPM Activities

DKPM (DKS Productive Maintenance) activities based on the 5S (Seiri, Seiton, Seisou, Seiketsu and Shitsuke) are activities for improving productivity, business efficiency, quality control and safety awareness that are the key elements of a manufacturer. These activities are also the base that supports the strategies of medium-term management plan stage II and the purpose of these activities is to strengthen the corporate culture and build a foundation for control and improvement. Following the declaration of the activities by the President in April 2012, all employees including top management participated in them, and the employees are promoting the activities under the guidance of consultants. Quarterly execution plans, maintenance management diagnosis, performance reports and on-site diagnosis by the top management became mandatory. The best teams are rewarded accordingly. One of the affiliates, Yokkaichi Chemical Company Limited has been conducting the activities under the name of YGPM for more than 20 years starting in 1990.



DKPM diagnosis by top management (Ohgata Branch)

### ▶ In-house Seminars and Briefings

In FY2013, the following in-house seminars and briefings were held:

- Seminars (by a visiting lecturer)
  - Chemistry concerning the particulate stabilization dispersion system
  - China patent system - key points for creating specifications with consideration for its features
- Briefings
  - Assessment for the research department: information management system and intellectual property rights
  - Publicity of database of contract review requests
  - About checkpoints of contracts



In-house seminar

### ▶ Meeting for Research Presentation

We hold meeting for research presentation twice every year, which provides company-wide technical forums for our researchers to present and discuss their latest findings in R&D and production technology developments. The meetings for Research Presentation are composed of three sections: a special seminar presented by a visiting lecturer, verbal presentations, and poster presentations. In FY2013, we held the 78th and 79th meetings for research presentations in July and January, respectively.

At a convivial meeting following the meeting for research presentation, participants vote on the best research presentation and a winner is awarded.



The 78th Meeting for Research Presentation

### ▶ In-house Magazine

We publish the in-house magazine "DKSCOM" every other month to introduce various articles including messages from top management, regarding management policy, and covering our employees' performance.

Our editorial policy is as follows:

- (1) Convey management policies and information to each employee and share them.
- (2) Promote communication between managers and employees.

Every year, each employee creates a challenge card and posted in the in-house magazine. Each card represents the challenge of each employee for the year and is posted at the workplace.



The Feb. - Mar. 2014 issue



Challenge Card

### ▶ Family Service Day

As our first effort, we held a Family Service Day (February) at the Yokkaichi Branch as an event for family members to become familiar with the workplace as well to strengthen the bond of families. Total of 34 persons from 10 families participated in the event.

The day was full of smiles as participants took a tour of the plant, learned about our products as well as how to make hand soap, and participated in a sampling party. We would like to see such events being held at other branches as well.



Family Service Day (Yokkaichi Branch)

### ▶ Healthcare & Occupational Safety

#### ■ Health Checkup

As a result of encouraging and motivating all our employees to get regular medical checkups, their checkup-participation rate in FY2013 increased to 100 % of our goal. To achieve early detection of cancer and ensure the promotion of good health for our employees, we conducted medical checkups including X-ray examination of the stomach, abdominal chocardiography, dental checkup, and PSA examination at all our branches.

Since FY2010 we have recommended reexamination and second checkup participation for employees who received results with abnormal findings in order to ensure that they do not fail to attend reexamination, and help them understand the clinical results. Consequently, the rate of reexamination and second checkup-participation was 68 % in FY2012, and 76 % in FY2013.

We will also make further efforts to achieve 100 % participation in FY2014. We will continue to promote this activity in order to prevent any current symptoms from leading to serious illness and/or keep any illness or other problems from increasing in severity.



Health Checkup (Kyoto Central Branch)

#### ■ Health Promotion

As part of health promotion, we held a seminar for prevention of lifestyle-related diseases. With a physiotherapist of Kansai Rosai Hospital as a lecturer, we had blood viscosity checked, followed by a lecture that included exercises to help prevent lifestyle-related diseases. We would like to continue implementing such health promotion activities for the maintenance and promotion of health.

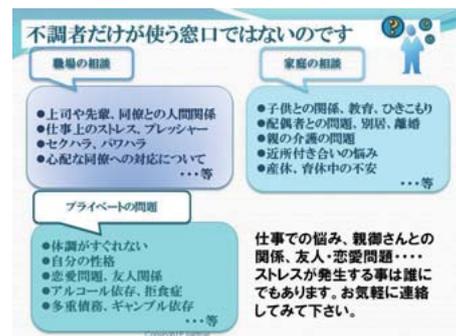


Seminar for Prevention of Lifestyle-Related Diseases (Kyoto Central Branch)

#### ■ Mental Health Care

As for mental healthcare activities in FY2013, we introduced an outside consultant and opened a consultation service. Targeting employees and their family members, non-work related consulting can be also accepted.

The consultant visited the Yokkaichi, Ogata, and Shiga Branches, providing lectures regarding counseling as well as counseling demonstrations. Information was also transmitted outside our branches regarding the counseling course and outside consultants.



Explanation by an outside consultant



# Yokkaichi Branch

Located in the coastal area of northwestern Mie Prefecture, our Yokkaichi Branch is blessed with natural surroundings that include the lush, green Suzuka Mountain Range, the water-filled Kiso Three Rivers, and Ise Bay. In order to protect this nature-rich region and its richly endowed environment, we strive to integrate environmental consciousness into all our business activities and continue to implement environmental protection practices. Following air pollution reduction through fuel conversion in recent years, we introduced electric vehicles as part of company activities with a focus on environmental consciousness and energy conservation. We are also implementing security and accident prevention measures to cope with the recent increase in plant accidents as well as accident prevention and fire prevention drills on a regular basis to prepare for earthquakes and plant accidents. We actively carry out local emergency drills, and promote our activities with the goal of being the branch coexistent with the local community. We will continue to advance and contribute to society by focusing on compliance and actively making efforts to reduce environmental impact.

**Address:** 7 Chitose-cho, Yokkaichi City, Mie Pref.

**Area of the Site:** 17,647 m<sup>2</sup>

**Main Products:**

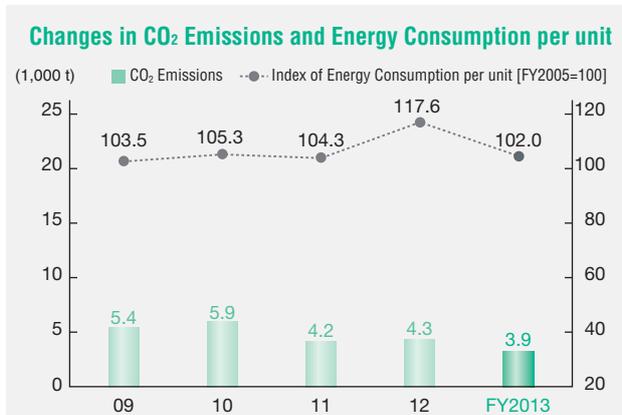
Polyurethane polyol, urethane prepolymer, UV-curable monomers/oligomers, cationic surfactant anionic surfactant, oiling/finishing agent



RC promoting member

### Environmental Impacts in FY2013

Energy Consumption (Crude oil equivalent)	(kℓ)	1,945
CO <sub>2</sub> Emissions	(t-CO <sub>2</sub> )	3,945
Generated Waste Amount	(t)	5,671
Final Disposal Amount	(t)	0.1
PRTR Emissions	(t)	34.72
Water Discharge Amount	(1,000m <sup>3</sup> )	490.5
COD Emissions	(t)	0.6



### ▶ Efforts in Environmental and Social Activities

This branch located in the industrial complex has promoted communication with local communities through activities concerning environmental protection and security and accident prevention, as well as active participation in local events. As for activities concerning environmental protection, we made efforts to reduce CO<sub>2</sub> through the activity of shutting down lighting. We also joined a cleanup work for driftage on the coast at the Toshi Island in Mie Prefecture, which was organized by the Mie Prefecture industrial waste disposal promotion association.

In addition, we have devoted ourselves to helping bring up children by joining the "Yokkaichi science seminar for children", giving delivery lectures, and donating newspapers for elementary students. The "Yokkaichi children science seminar" is organized by the Yokkaichi city education committee based on the idea of making full use of the characteristics of the city's industrial location, which helps children develop their intellectual curiosity and inquiring minds for science.



Cleanup activities in TOUSHIJIMA

## Ohgata Branch

Endowed with lush green natural surroundings, our Ohgata Branch is situated in Niigata Prefecture and faces the Sea of Japan. While enjoying the blessings of this region, we are devoted to the production of a wide range of products, including sodium carboxymethyl cellulose (CMC), waterborne urethanes, various industrial detergents, and resin additives. "Throughout the entire life cycle of our products, from development to disposal, we will pay special attention to both human safety and health and environmental preservation and also contribute to sustainable development and the realization of an affluent society." We adopt the above statement as our basic philosophy for environmental and safety practices. Currently, we intend to launch biomass fuel generation facilities while putting focus on waste reduction practices. The Ohgata Branch will continue to actively participate in environmental protection energy programs and energy-saving activities, while looking forward to the realization of a more livable planet and a spiritually affluent society.



RC promoting member



**Address:** 230 Saigata, Ohgata-ku, Joetsu City, Niigata Pref.

**Area of the Site:** 86,963 m<sup>2</sup>

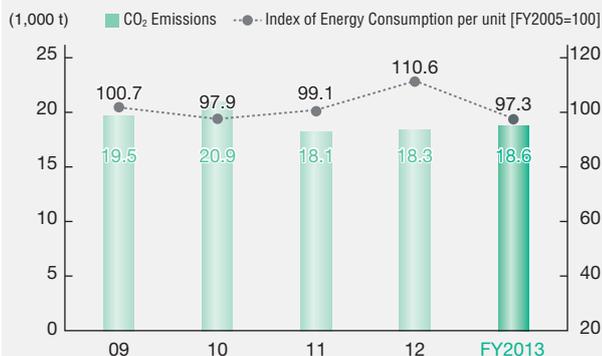
**Main Products:**

CMC, waterborne polyurethanes, industrial detergents, polyvinyl pyrrolidone

**Environmental Impacts in FY2013**

Energy Consumption (Crude oil equivalent)	(kℓ)	8,365
CO <sub>2</sub> Emissions	(t-CO <sub>2</sub> )	18,620
Generated Waste Amount	(t)	739
Final Disposal Amount	(t)	54.6
PRTR Emissions	(t)	0.34
Water Discharge Amount	(1,000m <sup>3</sup> )	546.1
COD Emissions	(t)	18.0

**Changes in CO<sub>2</sub> Emissions and Energy Consumption per unit**



**Changes in waste amount and the final disposal rate**



**▶ Efforts in Environmental and Social Activities**

The Ohgata Branch sets the environmental goals in the environment management system and continue to make efforts to reduce environmental impact, etc. We aim to promote 3R (Reduce, Reuse and Recycle) of industrial wastes and converting some of the wastes to valuables through segregation. Concerning wastewater treatment, we aim to save resources by preserving and improving the water quality and using activated sludge as fuel. We also utilize renewable energy of methane gas emitted during anaerobic treatment as heat.

We will also improve the relationship with the local community through communication. In order to conduct corporate activities that are appreciated, we will further deepen our communication with the local community by participating in local events and waste collection, emergency drills with the fire department and association of disaster prevention, and meetings with local residents.



Meeting with local residents



## Shiga Branch

Nestled to the west of Mt. Kinugasa, our Shiga Branch lies in the green Higashi-Omi area known to be one of the birthplaces of Omi merchants, and looks out over Japan's mother lake, Lake Biwa. We have been paying close attention to the environmental aspects of all our business activities and implementing environmental protection practices through continual improvement of our business activities. Our focus is placed on fostering communication with local communities so that our plant can peacefully coexist with them.

Up to now, we have made efforts to practice environmental protection such as reducing carbon dioxide emissions through fuel conversion and by introducing a cogeneration system, and improving wastewater treatment to reduce impact of COD.

In FY2013 in particular, we actualized stable operation of wastewater treatment facilities that were substantially improved last August, and achieved a reduction of the impact of COD. We will continue to emphasize compliance to gain further trust from the local community.

**Address:** 427 Gokasho Hiyoshi-cho, Higashi-Omi City, Shiga Pref.

**Area of the Site:** 105,753 m<sup>2</sup>

**Main Products:**

Sucrose fatty acid esters, food additives, metal surface treatment agents, surfactants, water-soluble polyester polyol, solvent-substitute waterborne/non-waterborne detergents



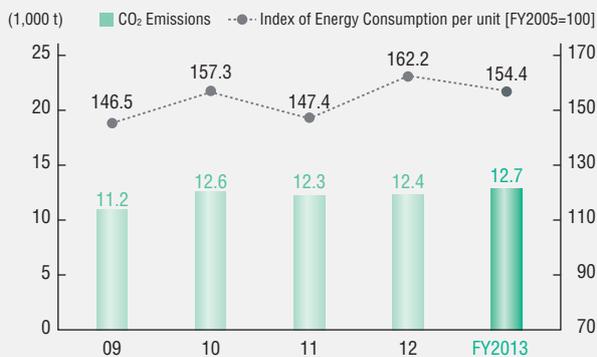
RC promoting member



### Environmental Impacts in FY2013

Energy Consumption (Crude oil equivalent)	(kℓ)	6,580
CO <sub>2</sub> Emissions	(t-CO <sub>2</sub> )	12,710
Generated Waste Amount	(t)	3,100
Final Disposal Amount	(t)	3.3
PRTR Emissions	(t)	0.41
Water Discharge Amount	(1,000 m <sup>3</sup> )	1,336.8
COD Emissions	(t)	3.6

### Changes in CO<sub>2</sub> Emissions and Energy Consumption per unit



### Changes in waste amount and the final disposal rate



### ► Efforts in Environmental and Social Activities

Every July, we implement an "Environment/Safety Patrol" along with people of the Higashi-Omi City Life Environment Division and executives of the local community.

First, we explain an overview of our branch and activities concerning safety and environment using slides. By explaining potential risks such as danger, noise, and foul smells that can be imagined with chemical plants, as well as our measures against any such potential risks, we were able to listen to the daily concerns of the local community, and reach a deeper mutual understanding through discussion. We also provided a tour centering on the plant and wastewater treatment facilities. We will continue such activities that are deeply rooted with the community.



Environment/Safety Patrol with people from the local community

## Yokkaichi Chemical Company Limited.

Yokkaichi Chemical Company Limited. was established in 1959 in the first industrial complex of Japan. Ever since, we have responded to various demands as a backbone fine-chemical manufacturer producing many own products.

Following the RC declaration in 2002, we are conducting production activities that take into consideration the environment for all processes from development to waste disposal. Other than our corporate philosophy, safety policy, environmental policy and quality policy, we have established a human resource training policy in 2012 for continuous growth. We are devoted to further conducting fair and transparent business activities and fulfilling social responsibilities while emphasizing compliance with stringent attention to environmental requirements, and enhancing thorough safety and coexistence with the global environment.

**Address:** Headquarters/Yokkaichi Plant:  
2-1, Miyahigashi-cho, Yokkaichi City, Mie Pref.  
Rokuromi Plant:  
710, Rokuromi, Oaza, Yokkaichi City, Mie Pref.

**URL:** <http://www.yg-chem.co.jp/>

**Area of the Site:** approx. 30,000 m<sup>2</sup> (Headquarters/Yokkaichi Plant),  
approx. 26,000 m<sup>2</sup> (Rokuromi Plant)

**Operations:** Manufacturing, processing and sales of various chemical products made from Ethylene oxide and other petrochemical industry products



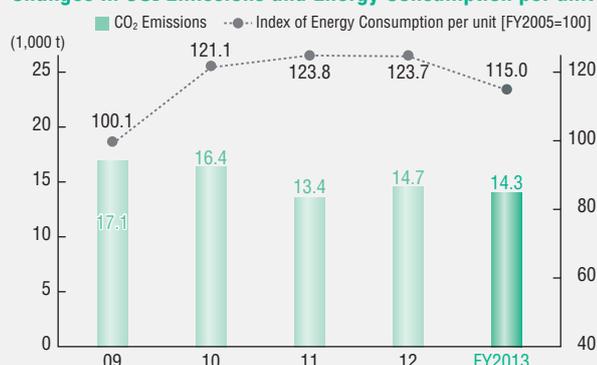
RC promoting member



### Environmental Impacts in FY2013

Energy Consumption (Crude oil equivalent)	(kℓ)	6,339
CO <sub>2</sub> Emissions	(t-CO <sub>2</sub> )	14,307
Generated Waste Amount	(t)	3,053
Final Disposal Amount	(t)	244.3
PRTR Emissions	(t)	0.69
Water Discharge Amount	(1,000 m <sup>3</sup> )	588.3
COD Emissions	(t)	1.5

### Changes in CO<sub>2</sub> Emissions and Energy Consumption per unit



### Changes in waste amount and the final disposal rate



### ► Efforts in Environmental and Social Activities

We have established various policies concerning safety, quality and environment and are conducting RC activities on a company-wide scale by establishing annual plans for security, accident prevention and occupational safety and health based on ISO systems of quality and environmental management. Furthermore, we have been implementing total productive maintenance activities (YGPM activities) such as business improvements and the 5S of plants for over 20 years ever since November 1990. In November 2013, a local survey was held by the Ministry of Economy, Trade and Industry based on the energy saving law. We received high recognition for our efforts as a Type 1 Designated Energy Management Factory. We are also communicating with local people by participating in workshops and events.



Emergency drill



## KYOTO ELEX CO., LTD.

### ► Company Overview

Our company was established in July 1986 for the development, manufacturing and sales of conductive pastes using precious metals (silver, palladium, and white gold) and copper as main raw materials by applying the dispersion technologies of Dai-ichi Kogyo Seiyaku and metal powder technologies of DOWA Electronics. By providing various pastes, we contribute to the improvement of quality and functionality of electronic devices and components used in solar batteries, smart phones, LED, medical and office automation devices.

### ► Environmental and Social Activities

While environmental and safety concerns continue to rise, environmental regulations such as REACH of Europe are becoming stricter each year in the field of electronic materials. Our company focuses especially on the development of products that contribute to the field of environmental protection. We have succeeded to commercialize the world's first silver paste for solar batteries that do not contain lead which is considered to environmentally hazardous. Not only is the paste used in Japan, it is used all over the world. As the demand for natural energy increases, we will continue our development to improve the performance of lead-free solar batteries that are more environmentally friendly.



RC promoting member



**Address:** 1 Ogawara-cho, Kisshoin, Minami-ku, Kyoto, Japan

**URL:** <http://www.kyoto-elex.co.jp/>

**Operations:** Manufacturing and sales of silver paste, silver - palladium paste, silver- white gold paste, copper paste, resin-type copper paste, resin-type silver paste, aluminum paste and glass paste as well as commissioned manufacturing of various conductive materials

## DAI-ICHI CERAMO Co., Ltd.

### ► Company Overview

Our company started as Dai-ichi Ceramo in 1988 when Ceramics Research Group separated from Dai-ichi Kogyo Seiyaku. We mainly develop, manufacture and sell PIM (power injection molding) compounds. Currently, we also sell our products to overseas. We supply optimized compounds by working closely with customers and conducting injection molding assessments. We are working hard on a daily basis to contribute to the growth of customers and the industrial world by carrying forward technological reform based on our accumulated knowledge.

### ► Environmental and Social Activities

Since we are located within the premises of our Shiga Branch, we are also conducting environmental preservation activities by working with the Branch. We are also working to reduce wastes through complete segregation and converting some of the wastes to valuables. We are devoted to further improving the natural and social environments while emphasizing compliance with stringent environmental requirements.



RC promoting member



**Address:** 432 Gokasho Hiyoshi-cho, Higashi Ohmi City, Shiga Pref.

**URL:** <http://www.dai-ichi-ceramo.co.jp/>

**Operations:** Manufacturing and sales of power injection molding (PIM) compounds

## Elexcel Corporation

### ► Company Overview

We have been refining our technologies in order to answer to the current demands for the development of lithium polymer batteries and lithium-ion second batteries of high safety. Other than independent research, we use our cumulated battery technologies and battery production technologies to manufacture prototype batteries, and accept evaluation and/or trial production operation concerning materials and components based on lithium-ion second batteries.

### ► Environmental and Social Activities

As part of our business, we develop lithium second batteries that use safer and cheaper iron phosphate as electrode material. We are contributing to energy saving and resource saving technologies through our development, which can be applied to energy storage as renewable energy, as well as to the the field of disaster countermeasures. Located at the Keihanna Plaza of the Kansai Science City, we aim to contribute to the society by interacting with venture firms and participating in Keihanna EV conferences.



RC promoting member



**Address:** 13th Floor, Laboratory, Keihanna Plaza, 1-7 Hikaridai, Soraku-gun Seikacho, Kyoto

**URL:** <http://www.elexcel.co.jp/>

**Operations:** Commissioned evaluation of battery materials, small-lot production of lithium-ion batteries, research and development

## P.T. DAI-ICHI KIMIA RAYA

### ► Company Overview

Our company was established in 1996 as a fiber processing agent manufacturer. Overcoming many obstacles including the monetary crisis and riot in Jakarta, we are also carrying forward business that fits the diversifying needs of the Indonesia market through manufacturing and sales of resin additives, synthetic water retention agents for paper making and food additives besides fiber processing agents.

### ► Environmental and Social Activities

Through the neighborhood council of the KIIC industrial district where we are located, we are conducting volunteer activities for the location community. We provide baby foods every month to babies living nearby and donate goats and cows to five of the nearby villages during Muslim festivals.



RC promoting member



**Address:** Headquarters/Plant: Kawasan, Java, Indonesia  
**Operations:** Production & sales of textile agents, plastic additives, paper processing agents, and food additives

## CHIN YEE CHEMICAL INDUSTRIES, CO., LTD.

### ► Company Overview

Our company was established in 1976, mainly manufacturing and selling fiber and chemical surfactants for the market of Taiwan. Since then, we have been contributing to the field of the electronics industry through manufacturing and sales of lubricants for plastics, printed circuit board flame retardants and heat-resistant hardeners. Recently, we have also been providing high-frequency materials for printed wiring boards and heat-resistant resin that demand high transmission performance.

### ► Environmental and Social Activities

We comply with ISO9001 and ISO14000 that are international standards of the environment and quality management system, and operate accordingly. As environmental measures, we have been reducing and reusing wastes by improving manufacturing processes.



RC promoting member



**Address:** Headquarters in Taipei City, Plant in Taoyuan County, Taiwan  
**Operations:** Manufacturing and sales of fiber and chemical surfactants, lubricants for plastics, flame retardants and chemical products for electronic materials; import, manufacturing and sales of civil engineering chemical agents; import and sales of Dai-ichi Kogyo Seiyaku products

## SHUANG YI LI (TIANJIN) NEW ENERGY CO., LTD.

### ► Company Overview

Our company was established in the 2005 as a manufacturer manufacturing and selling lithium-ion batteries in the Tianjin Economic-Technological Development Area of Tianjin City, China. We have been selected as a high-tech company in the Tianjin Economic-Technological Development Area as well as recognized for our social contributions.

### ► Environmental and Social Activities

We are making efforts to save energy by efficiently using our air compression system according to the production volume. We also collect used batteries in the company as well as those used at home to improve awareness concerning reducing environmental pollution.



RC promoting member



**Address:** Headquarters and Plant in Tianjin City, China  
**Operations:** Manufacturing and sales of lithium-ion batteries used in electric bicycles, electric tools, UPS, EV, HEV, etc.

## DAI-ICHI KOGYO SEIYAKU



### Cover: Jizo River in Samegai/Maibara City

In the Samegai district located at the base of Mt. Ryozen, a mountain at the northern end of Suzuka mountain range, spring water can be found flowing along the city side. Many tourists gather in the beginning of summer to see the beautiful white flowers of water buttercups that only grow in spring water. In Shiga Prefecture where our Shiga Branch is located, Lake Biwa with a rich ecosystem can also be found. The approximate 460 large and small rivers are a valuable source of water for the 14.5 million people living in the Kinki region.

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