

# Social and Environmental Report 2016

Social and Environmental Report 2016



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In the cover photo, children are wearing aprons they created using Cemedine products.

# Bringing society together with our adhesive technology

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Organizations covered by this report:  
This report covers Ibaraki Office (Ibaraki Plant and Development Center), Mie Office, and Head Office. When other sites are covered, there is a note to that effect.

Reporting period:  
The period covered by this report is from April 2015 to March 2016 unless otherwise specified.

Editorial policy:  
The Environmental Reporting Guidelines (Fiscal Year 2012 Version) issued by the Ministry of the Environment of Japan are referred to and reporting is in accordance with the items in the Guidelines.

# Cemedine Group's Profile

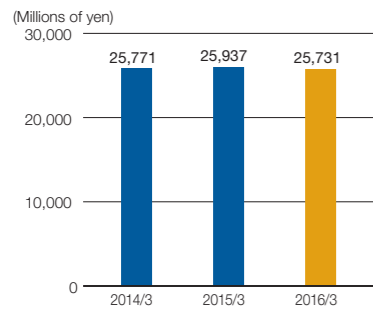
## Company Overview

(as of March 31, 2016)

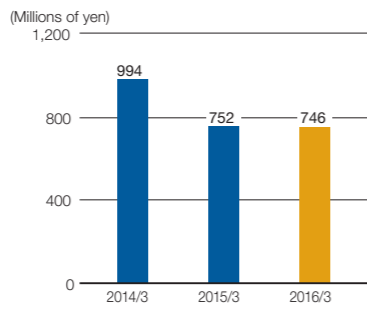
<b>Company name</b>	Cemedine Co., Ltd.
<b>Head office</b>	Gate City Ohsaki East Tower, 1-11-2, Osaki, Shinagawa-ku, Tokyo 141-8620, Japan
<b>Lines of business</b>	Manufacture and sale of adhesives, sealants, adhesive tapes, special paints, coating materials, and their processed products; construction and contracting for bonding and waterproofing.
<b>Established</b>	April 22, 1948 (Founded in November 1923)
<b>President and Representative Director</b>	Hiroshi Iwakiri
<b>Paid-up capital</b>	¥3,050,375,000 (Listed on the Second Section of Tokyo Stock Exchange)
<b>Number of employees</b>	273



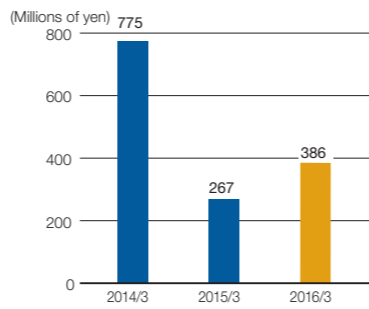
### Net sales (consolidated)



### Ordinary income (consolidated)



### Profit attributable to owners of parent (consolidated)

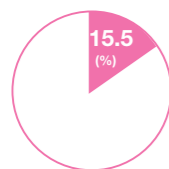


## Business Segment

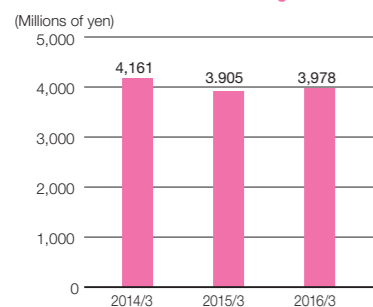
### General Consumer Market



#### Sales composition



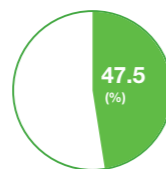
### General Consumer Market Segment sales



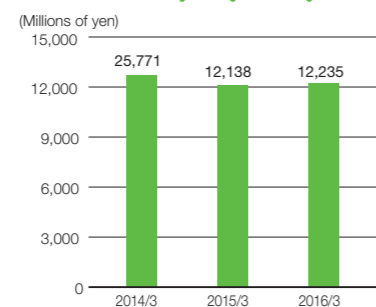
### Construction and Civil Engineering Market



#### Sales composition



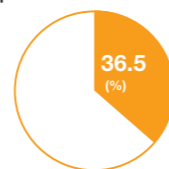
### Construction and Civil Engineering Market Segment sales



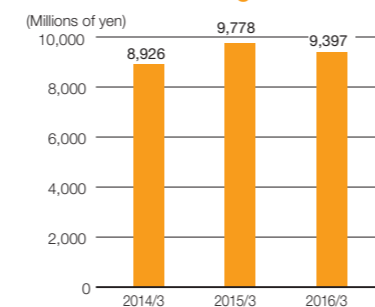
### Industrial Market



#### Sales composition



### Industrial Market Segment sales



## Asia

### Thailand

- 1 Cemedine (Thailand) Co., Ltd.**  
1717/1 Onnut Road, Suanluang, Bangkok 10250 Thailand
- 2 Asia Cemedine Co., Ltd.**  
1717/1 Onnut Road, Suanluang, Bangkok 10250 Thailand

### Taiwan

- 4 Taiwan Cemedine Co., Ltd.**  
No. 76-3, Xiaguiroushan, Danshui Dist., New Taipei City, Taiwan

### Philippines

- 5 Cemedine Philippines Corp.**  
Block2, Cavite Economic Zone II, General Trias, Cavite, Philippines 4107

### China

- 3 Cemedine Shanghai Co., Ltd.**  
Room 902, Central Towers A, No. 555, Lan Gao Road, Pu Tuo Dist., Shanghai 200333, China



## Japan

### Sales Offices

Osaka, Nagoya, Sapporo, Sendai, Fukuoka

### Plants

Ibaraki Plant, Mie Plant

### Affiliated Companies in Japan

Cemedine Automotive Co., Ltd.  
Cemedine Sales Co., Ltd.  
Cemedine Chemical Industries Co., Ltd.  
Cemedine Chemical Co., Ltd.

**Handing out leaflets to truck drivers advocating no littering**

**Pick up** Cemedine Chemical Co., Ltd.

The factory's vital mission is to efficiently manufacture and ensure stable supply of excellent products that achieve customer satisfaction at the lowest cost possible. Based on our conviction that not only product quality but also the quality of each manufacturing process is essential, the quality of each process at our plant is monitored using technology standards, manufacturing records, and quality conformance inspection of the process. Through continuous pursuit of *kaizen* (continuous improvement of working practices), we are committed to creating superior products.

**Voice**

**Takeo Sato**  
President and Representative Director  
Cemedine Chemical Co., Ltd.

### EXCEL II

Telechelic acrylic polymer-based sealant for sheet glass and sheet metal panels

Application: Sheet glass and exterior panels

JSIA F★★★★



For buildings!

### J-ROCK Y751

Acrylic resin-based adhesive for anchor bolts

Application: Fixing of post-installed anchor bolts



For tunnels!



### SX-UV100A

UV curable elastic adhesive

Application: Adhesion of panels for vehicle navigation systems

For vehicles!



# Cemedine Products All Around Us

### PM700N

Special modified silicone and epoxy resin-based joint filler

Application: Filling of joints of agricultural irrigation systems

For agricultural irrigation systems!



### Quick Dry for Woodworking

Acetic vinyl-based emulsion adhesive

Application: Adhesion of wood, textile, and paper



For handicrafts!



### SX-ECA48

One-part low-temperature curable flexible, conductive adhesive

Application: Noise countermeasures for electronic components mounted on parts and materials whose tolerance of heat is low, such as PET films; earth grounding for touch panels

For watches!



## Corporate Philosophy

“Respect people and contribute to society by providing better products to greater numbers of people”



**Hiroshi Iwakiri**

President and Representative Director

## Top Message

# Message from the Management

## Toward Our Centenary

## Cemedine's Adhesive Technology

## Helps Imagination Take Wing Worldwide

### 1. Toward Our Centenary

Cemedine will celebrate its centenary in 2023.

The countdown to the centenary is already underway and the long-term business plan Cemedine Pride 2023 is charting our course toward that auspicious anniversary. We are currently at the stage of finalizing the plan.

It was in 1923 that Cemedine's founder Zenjiro Imamura, convinced there would be huge demand for adhesives to stick all sorts of things and materials together, started manufacturing and sales of adhesives. Glues produced in Japan in those days were mainly composed of starch. Susceptible to humidity and moisture in the summer, they became frozen and unusable in the winter, and so imported high-performance products dominated the Japanese market. This was when “Cemedine,” the first chemical adhesive manufactured in Japan, made its grand debut. Zenjiro Imamura was also the one who coined the term *secchakuzai*, a Japanese word meaning adhesives. For 93 years since then, we have developed and supplied products to meet diverse needs, including for new applications, as a manufacturer specializing in adhesives and sealants, adhering to the corporate philosophy first articulated at the foundation of the company—“Contribute to society by providing better products to greater numbers of people.”

In recent years, new needs concerning adhesion have emerged in rapid succession. All of us at Cemedine take pride in meeting these customer needs by deploying the company's adhesive technology.

In 2015, our product Cemedine Y630D was adopted for the construction of the world's fourth-longest suspension bridge spanning the Gulf of Izmit in Turkey. In September 2017, the Hakuto moon rover of Team Hakuto, a Japanese team participating in Google Lunar XPRIZE, will be launched to the moon. Google Lunar XPRIZE is a competition for privately funded robotic

lunar spacecraft. With our adhesive applied in the Hakuto rover, it won't be long before “Cemedine is on the move on the moon.” I can't wait to see the first image of Hakuto bearing the Cemedine logo as it roams the lunar landscape.

By unceasingly cultivating innovative applications of Cemedine products for sticking all sorts of things and materials together, we have been able to position ourselves not only as a source of diverse consumer products, such as for handicrafts and models, but also of a wide range of industrial applications, extending from automotive, railroad rolling stock, and electronics to construction and civil engineering. As a pioneer of adhesives in Japan, we are resolved to continue meeting customer needs by creating new products for new applications in the run-up to the centenary that will fuel our growth as an enterprise.

### 2. Issues for Fiscal 2017

With the aim of realizing sustainable growth, the Cemedine Group will implement three key measures for 2018 to achieve the goals of Cemedine Pride 2023.

The three key measures are: 1) Expand sales and improve the cost structure, 2) Expand sales of high-value-added products, and 3) Increase the overseas sales ratio.

To implement these key measures, we will review business processes and systems, including the personnel system. Furthermore, we will launch the Fourth Company-wide Cost Improvement Project Team to continue improving the cost structure.

In the Industrial Market, we introduced the Cemedine SX-ECA series of conductive adhesives that offer new functions and are highly versatile in terms of adhesiveness, flexibility, and durability. With these products enabling direct implementation of printed circuit boards on soft materials, such as textiles and films, we are targeting unconventional applications. One example of



automotive market in North America through early introduction of new, high-value-added products. We also aim to turn Cemedine (Ningbo) Auto New Material Co., Ltd., which serves customers in China, into a profitable business through sales expansion and a leaner cost structure.

### 3. Financial Results for Fiscal 2016

Net sales for the fiscal year ended March 31, 2016 (fiscal 2016) decreased 0.8% year on year to ¥25,731 million because sales of products for the Industrial Market declined although sales of products for the Construction and Civil Engineering Market were brisk and sales of products for the General Consumer Market flatlined.

Regarding profits, operating income rose 28.9% year on year to ¥794 million, owing to lower prices of certain raw materials, reflecting lower prices of crude oil and naphtha, and lower labor costs as a result of completion of amortization of net retirement benefit obligation at transition, which had been recorded until fiscal 2015. However, ordinary income decreased 0.8% year on year to ¥746 million mainly because of a decrease in non-operating income, such as foreign exchange gains, which the Company recorded for fiscal 2015.

Profit attributable to owners of parent increased 44.5% year on year to ¥386 million due to an increase in tax expenses as a result of careful consideration in fiscal 2015 of collection of deferred tax assets, despite recording of a loss on revision of retirement benefit plan as an extraordinary loss.

### 4. Outlook for Fiscal 2017

The business environment for the fiscal year ending March 31, 2017 is extremely uncertain, and with the world economy being largely impacted by the UK referendum that resulted in favor of Brexit, economic prospects are expected to remain unclear. In the Construction and Civil Engineering Market, demand is on a recovery track led by construction of detached houses in Japan. In the Industrial Market, demand for products for electrical and electronic components is expected to recover and we will strive to cultivate new demand centering on Asia.

Our sales, development, and production operations will join forces in a concerted effort to expand sales.

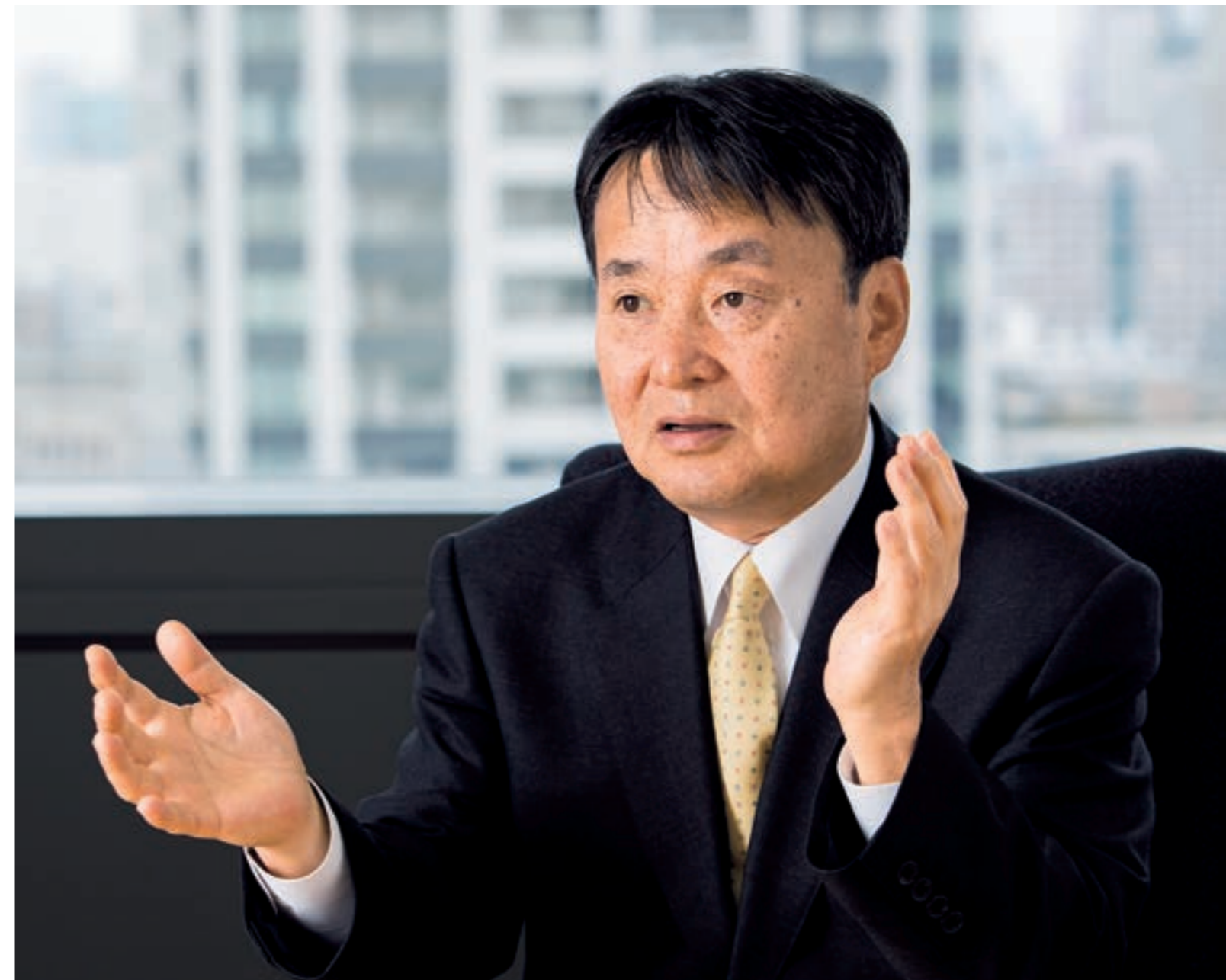
We forecast net sales of ¥27.8 billion, an increase of 8.0% year on year, operating income of ¥0.9 billion, up 13.3%, ordinary income of ¥0.8 billion, up 7.2%, and profit attributable to owners of parent of ¥0.5

billion, up 29.5%. The government announced the postponement of the consumption tax rate increase until October 2019. We are taking steps so that our financial results will be unaffected by this postponement.

### 5. Relationship With the Parent Company

On January 20, 2016, Kaneka Corporation increased its equity stake in Cemedine from over 30% to over 51%, and Cemedine became a consolidated subsidiary of Kaneka through a takeover bid. Cemedine has long been purchasing raw resins from Kaneka, which is a manufacturer of raw materials, and has also cultivated a good relationship with Kaneka in product development. By combining Cemedine's technology for compounding various raw materials, technology for evaluation of physical properties of compounds, such as durability and adhesiveness, and technology for more effective use of adhesives with the Kaneka

Group's technology for polymer synthesis for raw resins, Cemedine and Kaneka will promote development of new adhesives for structures and for composite materials while strengthening the fundamentals of both companies. In addition to the pursuit of faster decision-making through closer collaboration, greater use of resources of the Kaneka Group and the Cemedine Group, including assets, technology, know-how, and overseas networks, will allow the two groups to flexibly implement business strategies from a medium- to long-term perspective. I am confident that Cemedine becoming a consolidated subsidiary of Kaneka will lead to greater synergy between the two companies and the enhancement of corporate value. In view of our membership of the Kaneka Group, the Cemedine Pride 2023 long-term business plan, which we began formulating in 2015 in the run-up to the centenary, is being adjusted in light of Kaneka's long-term vision and mid-term plan. We will consider making an announcement about the definitive Cemedine Pride 2023 once the necessary adjustments have been made.



this is "Wearable Cemedine," showcased at the Second Wearable EXPO in January 2016, which gained plenty of exposure in the media.

In the Construction and Civil Engineering Market, we redesigned our adhesives for exterior tiling and launched the Cemedine Tile Ace Pro series, which rapidly gained popularity. The exterior tiling method using elastic adhesion to stop tiles coming off, which we proposed 30 years ago, is gradually establishing its position in the industry. With its combined advantages of outstanding ease-of-use and enhanced functionality, a great future is expected for the Cemedine Tile Ace Pro series.

In the General Consumer Market, following Cemedine PASTE, which was a game-changer as a water-based adhesive with amazingly wide applications, we introduced Cemedine *nu~no!* that can be used for hemming-up pants or putting a number on a uniform, super easy, and is attracting an enthusiastic following among consumers.

As for global business development, our priority is to achieve profitability of the business targeting the



Special feature 1

# Cemedine's Procurement Bonds the World

Makoto Tateno  
Director  
General Manager, Production &  
Distribution Division



**Procurement of goods and services in the Cemedine Group**

**Tateno:** After Cemedine became a member of the Kaneka Group in January 2016, we decided to establish a number of basic policies in line with those of the Kaneka Group. One such policy is the Basic Procurement Policy governing procurement, an activity of critical importance to business.

We formulated the policy on the basis of the Kaneka Group's Basic Procurement Policy in keeping with the following four concepts: Compliance and Purchasing Ethics, Principles of Purchasing Transactions, The Practice of CSR in Purchase Transactions, and Requirements for Suppliers.

In addition to matters relating to the procurement of goods, such as product raw materials and auxiliary materials, these concepts also cover services obtained from specialized providers in fields such as computer systems, human resources, distribution, and advertising and promotional materials and website production. Managers and employees from the various departments involved in procurement gathered together to discuss the issues.

Basic Procurement Policy (See page 21)

**Cooperation and support essential to procurement**

**Kurosawa:** The Purchasing Department procures raw materials and auxiliary materials in cooperation with the Development Department, Quality Assurance Division, and sales divisions. We cooperate closely with the Development Department in selecting inexpensive, competitive materials, with the production plants when purchasing materials for the first time, and with the Quality Assurance Division and sales divisions when an incident at a chemical plant or other problem occurs. Furthermore, the Development Department plays a key role when we consider alternative materials. In fact, there are few matters that the Purchasing Department can decide alone.

Atsushi Saito  
Executive Officer  
General Manager, Quality Assurance Division



**Hashimukai:** The Development Department initially selects raw materials for use in product development. From time to time certain raw materials suddenly become unavailable for use because of a legal or regulatory change. When that happens, we gather information and select raw materials and auxiliary materials to procure, including alternative materials, in cooperation with the Purchasing Department, Quality Assurance Department, and the other departments involved. To ensure a smooth response in the event that a problem arises, the Development Department provides the Purchasing Department with information on possible alternatives for each raw material considered in the past.

**Saito:** The Quality Assurance Division endeavors to raise the quality level of not only products, but also

Shigeru Kurosawa  
General Manager  
Purchasing Department, Production &  
Distribution Division



overall production activities, in conjunction with routine quality auditing. Its activities include selection of suppliers capable of offering stable supplies of materials, control of raw materials under the Green Procurement Guidelines, regulatory management to ensure safety and security, and operation of a monitoring system that verifies the non-use of harmful substances and checks manufacturing processes. We earn the trust of

Takao Kamakura

General Manager  
Distribution Department,  
Production & Distribution  
Division



end customers and users through implementation of these activities across the entire product range.

**Kamakura:** Procurement is indeed the starting point of production, isn't it? The Distribution Department is in charge of the final process of delivering products to customers. It is essential that we accord due consideration to safety and the environment and observe all laws and regulations applicable to Cemedine products. Other activities include efforts to promote a modal shift, reduce truck delivery costs, increase container loads, and reduce airfreight, in collaboration with courier companies and with the cooperation from customers.

**Knowledge of the supply chain is key to responding effectively to change**

**Iwahara:** In consumer products, there have been increasing cases in which we are compelled to switch to a different raw material because the one we have been using suddenly becomes unavailable.

**Koyano:** The homebuilders who are my customers are very demanding when it comes to price and stable supply. With regard to price in particular, it is difficult to simply request an increase without offering an offsetting benefit such as performance improvement.

**Hashimukai:** While regulations are one factor that leads to changes in raw materials, suppliers' commercial considerations are another. There is also the issue of aging plant. Much of the production equipment in Japan and abroad needs replacing. And so the question arises as to whether it would be commercially advantageous to build new plants from the perspective of profitability, and thus some raw materials will go out of production.

**Kurosawa:** In addition, the prices of raw materials change according to the balance of supply and demand. Since many adhesive raw materials are derived from oil, they are affected by crude oil prices and exchange rates. So we make a point of using general-purpose raw materials whenever possible and ensure the supply of raw materials to plants at stable prices by diversifying risk, for example by purchasing from multiple suppliers.

**Tateno:** The supply chain is another consideration. Failure to thoroughly understand the supply chain—how raw materials are produced and what materials are used to produce them—can lead to inability to procure the ingredients of our raw materials if an explosion or other accident occurs at a plant somewhere. Since this can result in a sharp price increase or a supply stoppage, we must continually monitor the situation and be on our guard.

**Kurosawa:** That's why suppliers who cooperate with us at a moment's notice when something happens are extremely important. When supplier plants in the Tohoku region were damaged in the Great East Japan Earthquake, we were able to meet our needs using raw materials produced at plants in Okayama and other locations in western Japan.

**Earning a good reputation among employees, customers, and users through appropriate management of chemicals**

**Tateno:** The June 2016 amendment of the Industrial Safety and Health Act requires risk assessment of chemical substances and has made the labeling of containers or packaging and distribution of safety data

sheets (SDS) for 640 chemicals and their mixtures mandatory. This amendment is designed to prevent accidents by ensuring accurate provision of information to users of chemical substances and having them conduct risk assessment.

**Saito:** Our Environmental Management Group's Chemicals Management Committee continually monitors amendments to laws and regulations. Cemedine has also established its own voluntary chemical regulations based on the Regulations for Management of Chemical Substances. At the same time, reflecting top management's strong commitment to the elimination of occupational accidents, the Health and Safety Group was formed to engage in safety-related risk assessment, also covering subsidiaries, as well as employee education, and health and safety activities and is reinforcing occupational safety.

**Koyano:** In the B2B market, customers increasingly require SDS for newly adopted products. Although until now we have explained to customers how to appropriately manage the Cemedine products they use on their production lines, from now on we will have to focus on awareness activities using SDS.

**Iwahara:** We have been promoting awareness of appropriate management of chemicals used in consumer

Hideharu Hashimukai

Manager  
No. 1, No. 3, and No. 5 Research  
Groups, Development  
Department,  
Technology Division



Shinichiro Iwahara

Manager  
Sales Promotion Group,  
No. 4 Business Department,  
Sales Division



products by posting an A4-size leaflet for each item on the corporate website, but I believe we need to do more. I think improvement with respect to alternative materials is necessary as well, since we currently explain raw materials changes using printed cards attached to the products without expressly announcing them to customers.

**Kamakura:** The Distribution Department manages products in warehouses. We have begun initiatives for the appropriate management of chemicals, such as providing courier companies with information on the emergency response in case of leakage during transportation.

**Sustaining the future of the global environment**

**Hashimukai:** In the Development Department, each group has decided on a development theme and is examining raw materials and containers with the objective of developing three or more eco-friendly products. Mindful that environmental consideration touch on diverse issues, we are working to create products that are eco-friendly from every perspective: for instance, changing from solvent-based to water-based products and developing low-energy curing adhesives, adhesives that enable shortening of production lines, and adhesives that enable production in low-noise environments.

**Iwahara:** What we hear most about from consumers is solvent odor, such as the acetic acid odor of wood adhesives. They tell us that the smell makes many children feel sick. Even though Cemedine Super-X, our mainstay product, is a solvent-free 100% resin adhesive that is an eco-friendly product, it is technically treated as a hazardous material. We will forge ahead with development to enable customers to safely use our products through innovation in containers and methods of use.

**Koyano:** For the B2B market, innovations such as low-energy curing and the ability to shorten production lines or produce in low-noise environments lead to cost reductions for corporate customers. We aim for win-win product development that enables us to offer products at appropriate prices by adding value in various ways, for example by making it possible customers to achieve total cost reduction even if the adhesive itself is more expensive.

**Tateno:** For the Production Division, management of waste discharged from the production plants is an environmental priority. We continually measure the environment at the plant boundaries. On the shop floor, we devise production processes and make production plans to prevent product contamination with harmful substances.

**Kamakura:** According to a Ministry of Land, Infrastructure, Transport and Tourism survey, distribution accounts for 20% of overall industrial CO<sub>2</sub> emissions, of which 40% comes from trucks. Cemedine uses rail freight for long-distance transportation and is promoting conversion to electric vehicles by courier companies. We also engage in eco-friendly procurement by using recycled pallets and packaging materials.

**Kurosawa:** I think the Purchasing Department's core mission is to ensure stable supplies of high-quality, eco-friendly raw materials and auxiliary materials at reasonable prices for production operations. I want to work diligently to refine this process through collaboration with other departments.

**Saito:** Although the Quality Assurance Division engages in the low-profile work on quality management and health, safety, and environment management as sort of a quality and HSE watchdog, I believe it plays a key role. Our work is important to the safety and security of employees, users, and customers. A single mistake in the handling of chemical substances can lead to great disruption. I want to focus my mind on this vital task.

**Tateno:** The word "people" in Cemedine's corporate philosophy "Respect people and contribute to society by providing better products to greater numbers of people" includes the people who use Cemedine products and everyone involved in the product supply chain, including, of course, employees and suppliers. It also includes the people involved in all services, such as transportation. Placing the highest priority on protecting the safety of people in the supply chain is what we mean by "respecting people." I thank all of you for your illuminating comments on these vital matters.

**Everyone:** Thank you.

Shinya Koyano

Manager  
Sales Promotion Group,  
No. 2 Business  
Department,  
Sales Division





# Cemedine on the Move — From Thailand to Other Asian Markets

## Establishment of Cemedine (Thailand)

- 1967 Participation in a Kingdom of Thailand royal development project to modernize the automotive industry
- 1969 Visit to the Cemedine head office in Gotanda, Tokyo  
(Request from a Japanese automaker in Thailand for shipment of No. 110 brake adhesive)
- 1981 Establishment of Cemedine (Thailand) Co., Ltd.; start of production (Nov. 13)

At the request of a Japanese automaker in Thailand that wished to procure locally manufactured products, I visited Japan to request then Cemedine President Masanao Hara to open a production plant in Thailand. As a result, President Hara decided to set up a company in Thailand, following the establishment of Taiwan Cemedine. Naomi Okamura and Nobuyuki Tanaka participated in the project and contributed greatly to the start-up of the Thai plant.

Using kneaders transferred from the Ibaraki Plant in Japan, the Thai plant managed to start production following a process of trial and error. Not only did the plant subsequently secure the adoption of its cellulose (CT) products by every automaker in Thailand, but soon after also began

supplying PVC products to all these customers.

It will soon be half a century since I was posted to Thailand. I have been involved with Cemedine products for 48 years, and nearly 35 years have passed since we began local production. I feel deeply grateful when I recall that the growth and successful development of Cemedine (Thailand) over the years is owing to the patronage of our many users and the dedicated professionalism of our many excellent employees.

I intend to carry on with the same determination as my predecessors did 35 years ago, who overcame various challenges from the company's trial-and-error beginnings, achieving sustainable growth as they progressed to the next level of development.



**Kenzo Endo**  
Cemedine (Thailand) Co., Ltd.



Establishment of Cemedine (Thailand)



Making good on a commitment to *kaizen* as a never-ending journey

## Kaizen initiatives at Cemedine (Thailand)

Cemedine (Thailand) has supplied products to automakers as a Tier 1 supplier for more than 30 years, constantly striving to prove worthy of its customers' trust.

In discussion from the outset, Cemedine, Cemedine (Thailand), and Cemedine Automotive sought to identify what automakers want from a supplier and, as a result, formulated Cemedine (Thailand)'s *kaizen* concept.

To make this concept a reality, three pillars of *kaizen* activities were established: 1) Process *kaizen* focusing on visualization of production processes and the introduction of systems preventing human error; 2) work environment *kaizen* to ensure the practice of 3S and safe work operations; and 3) education to realize

continuous *kaizen*. A Cemedine, Cemedine (Thailand), and Cemedine Automotive joint taskforce team was formed to spearhead *kaizen* promotion, and Cemedine (Thailand) has engaged in *kaizen* activities based on a *kaizen* schedule since September 2015.

*Kaizen* is practiced today through a repeated process of constant monitoring of *kaizen* progress against the schedule, reviewing of the schedule in the event of delay, and preparation and implementation of a follow-up plan.

Cemedine (Thailand) will continue endeavoring to fulfill its aspirations as a company trusted by customers, making good on its commitment to *kaizen* as a never-ending journey.

### Overview of Cemedine (Thailand)

Company name	Cemedine (Thailand) Company, Limited
Established	November 1981
Location	Headquarter & Technical Support Center (本社) 1717/1 Onnut Road, Suanluang, Bangkok 10250 Thailand
	Production Facility (工場) 494 Moo 4 Bangpoo Industrial Estate T. Praksa, A. Muang Samutprakarn 10280 Thailand
Lines of businesses (products)	Sealant and Adhesive for Automotive
Number of employees	92 persons ( male : 71 female : 21 )
Major clients	Toyota Motor Thailand Co., Ltd., Honda Automobile (Thailand) Co., Ltd. and all automotive companies in Thailand

### Voice



Supplying products that satisfy customers

**Hiroshi Matsuda,**  
Cemedine (Thailand) Co., Ltd.

To delight and satisfy customers, it is essential to manufacture and supply products of consistently high quality.

To accomplish this, we pursue *kaizen* in every production process from materials acceptance to finished product shipment with the objective of ensuring that no problems occur in quality or supply.

This year, we introduced a barcode-based system to avoid errors, which I think is a major advance in ensuring the certainty of quality. We will continue practicing *kaizen* in order to continue manufacturing excellent products that deliver outstanding customer satisfaction.



Special feature 2

# Cemedine in the Global Arena



### Overview of Asia Cemedine

Company name	Asia Cemedine Company, Limited
Established	October 2004
Location	<b>Headquarter &amp; Technical Support Center (Head Office)</b> 1717/1 Onnut Road, Suanluang, Bangkok 10250 Thailand <b>Production Facility (Plant)</b> 580 Moo 4, Bangpoo Industrial Estate, Soi 13, T. Praksa, A. Muang Samutprakarn 10280 Thailand
Lines of businesses (products)	Sealant and Adhesive for General Industry and Construction Industry
Number of employees	29 persons ( male : 17 female : 12 )
Major clients	Sekisui-SCG Industry Co., Ltd., Anden (Thailand) Co., Ltd. and Other industrial companies

## Cemedine on the Move – From Thailand to Other Asian Markets

### Establishment of Asia Cemedine

Asia Cemedine was established in October 2004 as a joint venture of Asia Kenty, Cemedine and Mitsubishi Corporation. Whereas Cemedine (Thailand), established in 1981, has developed as a manufacturer specializing in automotive sealants and adhesives, the joint venture was launched as a manufacturer of a wide range of products for general industrial applications. Having overcome various challenges in circumstances quite different from those in Japan, Asia Cemedine has secured a position

as a leading producer of moisture-curable adhesives. The company has now prepared a temperature- and humidity-controlled manufacturing facility. The implementation of this advanced manufacturing environment is a groundbreaking development also applicable to products used for electronic parts that are incompatible with moisture-curable adhesives and susceptible to damage from foreign matter. It promises to greatly enhance Asia Cemedine's prospects.

### Special feature 2

## Cemedine in the Global Arena

### Making the most of rudimentary cross-cultural communication

#### Kaizen initiatives at Asia Cemedine

In the context of ongoing globalization, Cemedine has decided to transfer products from the Ibaraki Plant to Asia Cemedine (ACC), which has been pursuing *kaizen* since April 2015. ACC is implementing three main *kaizen* activities. The first is the practice of the 3S: *seiri* (orderliness), *seiton* (tidiness), and *seiso* (cleanliness). The second is preparation of procedure manuals that explain in a readily understandable manner how to make the products. And the third is education in the key points of work operations.

Although it sounds fairly straightforward, in fact it is necessary to engage with cultural differences, including differences of temperament, in order to successfully implement these activities. To generalize, while Japanese tend to apply themselves to the task in hand with a sense of urgency, I think Thais have a more easygoing temperament.

Consequently, we are apt to talk past each other. That was the situation when we started *kaizen* activities.

However, as we spent more and more time working together, I and other Japanese came to appreciate the qualities of Thais: they are cheerful, accommodating, and willing. Still, I don't know whether it is an aspect of the national character, but Thais don't tend to excel at schedule management. By offering support to our Thai co-workers in this area, Japanese and Thais were eventually able to get on the same wavelength.

There is an emphatic Thai expression, *dai dai*, that means something like "Can do!" The immediate response to *dai dai* is *su su*, an expression of encouragement meaning "Fight on!" Thais use these expressions to cheer one another on. When Thai employees say "*dai dai*," I respond with "*su su*," and we proceed with *kaizen* together. If something is

behind schedule, I say "*dai dai*" to make up for the delay. I think repetition of this interaction has contributed to *kaizen* at ACC.

Although at first I hesitated to use these everyday Thai expressions, when I summoned the courage to use them, it felt surprisingly good. I suppose this is an example of cross-cultural communication. I intend to continue pursuing *kaizen* activities at ACC in the spirit of *dai dai* and *su su*.

#### Voice



#### Becoming a model for Cemedine plants worldwide!

Nobuyuki Tanaka  
Cemedine Co., Ltd.

Although it took a concerted, all-out effort to secure customer approval during a plant inspection by a Thai electronic parts manufacturer, thanks to the tremendous support from various Cemedine departments we were able to commence delivery of products without a hitch. We were the first Cemedine Group company in Asia to prepare a sophisticated manufacturing facility in which temperature, humidity and foreign matter are all controlled. Indeed, our ambition of "Becoming a model plant for Cemedine plants worldwide!" is within our grasp.



## Cemedine Group's CSR

# Toward Realization of a Sustainable Society

All of us at the Cemedine Group share the Basic Philosophy to ensure that Cemedine continues to be a trusted enterprise. "Cemedine's Five Principles," which articulate our mission to fulfill our corporate social responsibility as members of the Cemedine Group, emphasize the importance of contributing to realization of a sustainable society.

### Basic Philosophy

**"Respect people and contribute to society by providing better products to greater numbers of people"**

#### People means:

- Customers who purchase our products, and everyone related to promotion of Cemedine's business including suppliers, distributors, retailers, and those involved in transportation
- Shareholders
- Employees

**Respect everyone related to promotion of Cemedine's business and contribute to society**



### Management Policies

#### Thorough Compliance

- Accord the highest priority to ensuring compliance as a social mission
- Respond to rules-based society through compliance with the Cemedine Group Code of Conduct

#### Customer First

- Offer products based on an accurate understanding of the value that customers want
- Strive to earn customers' confidence in Cemedine as a proposal-driven enterprise

#### Profit-oriented

- Improve productivity in all fields
- Pursue the optimum productivity and take actions for its accomplishment
- Concentrated and selective investment of resources in products that generate profit and products that will be future pillars of the business
- Be proactive and embrace change



### Code of Conduct (See page 39.)

## Cemedine's Five Principles

<b>Respect for customers</b>	1 Offering safe and reliable products	2 Responding to customer needs	3 Development of high-added-value products
<b>Respect for the environment</b>	1 Application of environmental standards exceeding legal requirements	2 Environmental initiatives	3 Business activities and environmental impacts
<b>Respect for people</b>	1 Groupwide human resource development	2 Diversity initiatives	3 Collaboration with suppliers
<b>Continuing to flourish as a company needed by society</b>	1 Contributing to local communities	2 Timely and appropriate information disclosure	3 Initiatives for enhancement of the level of the adhesive industry
<b>Toward sustainable enhancement of corporate value</b>	1 Enhancement of corporate governance	2 Compliance and risk management	3 Cemedine Group's initiatives for quality and safety

## Relationships with Major Stakeholders

We respect everyone related to the Cemedine Group.

We strive to establish good relationships with stakeholders by clarifying what we can do for them and the issues we need to address (corporate mission) and through effective communication.

	Principal responsibilities	Communication method
<b>Customers</b>	<ul style="list-style-type: none"> <li>● Quality management</li> <li>● Development of environmentally conscious products</li> <li>● Safety considerations in logistics</li> <li>● Provision of product information and services</li> </ul>	<ul style="list-style-type: none"> <li>● Establishment of a contact for customer inquiries (Adhesive Technology Consultation Center)</li> <li>● Responses to customers by sales and service personnel</li> <li>● Information dissemination on the website</li> <li>● Holding of exhibitions</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>● Stable procurement</li> </ul>	<ul style="list-style-type: none"> <li>● Communication in the course of daily work</li> <li>● On-site inspection of procurement partners and feedback</li> </ul>
<b>Society</b>	<ul style="list-style-type: none"> <li>● Social contribution activities</li> </ul>	<ul style="list-style-type: none"> <li>● Participation in local events</li> </ul>
<b>Shareholders and Investors</b>	<ul style="list-style-type: none"> <li>● Return of profit to shareholders</li> <li>● Enhancement of corporate value through dialogue with shareholders and investors</li> </ul>	<ul style="list-style-type: none"> <li>● General Meeting of Shareholders</li> <li>● Timely disclosure by news releases, public notices, etc.</li> <li>● Information dissemination on the website, etc.</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>● Occupational health and safety</li> <li>● Human resources development</li> <li>● Diversity in employment</li> <li>● Consideration for work-life balance</li> </ul>	<ul style="list-style-type: none"> <li>● Discussion at the labor-management council or with representatives</li> <li>● Compliance &amp; Risk Management Committee</li> <li>● Questionnaire on the social and environmental report</li> </ul>

## Cemedine Group's CSR Activity Report

### Respect for customers

- 1 Promoting stable procurement, basic procurement policy
- 2 Participation in exhibitions
- 3 Mission to create highly functional products

→ P21

### Respect for the environment

- 1 Environmental management systems, product risk management, etc.
- 2 Environmental policy, promotion structure, environmental management program
- 3 Input and output of chemical substances, results of the company-wide environmental management program, etc.

→ P25

### Respect for people

- 1 Human resources development initiatives
- 2 Creating workplaces where people from diverse backgrounds can play an active role

→ P34

### Continuing to flourish as a company needed by society

- 1 Social contribution activities
- 2 Basic policy on information disclosure, basic policy on profit distribution, general meeting of shareholders

→ P36

### Toward sustainable enhancement of corporate value

- 1 Basic approach to corporate governance, CSR support framework
- 2 Compliance implementation framework, BCP, information management initiatives, approach to risk management
- 3 Cemedine Group's quality assurance systems, quality control systems in Japan, thorough compliance with the Industrial Safety and Health Act

→ P38

# Respect for Customers

Positioning legal and regulatory compliance as our first priority, we are working to ensure fair and sound relationships with customers and suppliers.

We are committed to contributing to society and enhancing corporate value by offering products and services of excellent quality that are safe, reliable, environmentally friendly, and beneficial to society.

## Offering Safe and Reliable Products

### Promoting Stable Procurement

In order to ensure the quality of the parts and materials we procure, grasp the creditworthiness of suppliers for ongoing transactions, and promote stable procurement, Cemedine concludes a basic transaction agreement with each supplier and issues specifications for materials. We strive to establish cooperative relationships rooted in trust with suppliers through fair and equitable purchasing.

#### Basic Procurement Policy

- 1 We engage in procurement activities that enhance the corporate value of both Cemedine and our suppliers.
- 2 We engage in green procurement to reduce environmental impacts.
- 3 We provide fair and equitable transaction opportunities and engage in rational transactions reflecting comprehensive consideration of quality, price, supply stability, technological development capabilities, environmental preservation, securing of safety, and other factors.
- 4 We abide strictly by the relevant laws and regulations in and outside Japan.

#### Compliance and Purchasing Ethics

- We ensure compliance with laws and regulations in and outside Japan while striving to act ethically in accordance with the Cemedine Group Code of Conduct and other internal standards.
- We execute contracts with suppliers in good faith.
- We exercise due care in communication with suppliers and strive to ensure confidentiality of information that comes to our knowledge based on a good understanding of the materiality of such information.
- We strive to establish prosperous relationships with suppliers, considering fair, equitable, transparent, and rational operating procedures.

#### Principles for Purchase Transactions

- We engage in transactions at appropriate prices based on economic rationality.
- In selecting suppliers, we consider quality, prices, supply stability, technological development capabilities, environmental preservation, securing of safety, time of delivery, and other factors and make a rational selection. If we decide not to select a supplier and if the company desires an explanation, we inform the company of the reasons for the decision.
- In principle, our purchase decisions are based on comparison of quotes from several suppliers.
- We establish rules for cost reduction initiatives with suppliers and vigorously promote such initiatives.

#### Fulfilment of CSR in Purchase Transactions

- In purchase transactions, we comply with laws and regulations, the Cemedine Green Procurement Guidelines, and other standards in order to ensure quality and safety of the raw materials and other items that we purchase.
- We confirm that items purchased are environmentally friendly and that their production and distribution are unrelated to the abuse of human rights.

#### Requests to Suppliers

- We request our suppliers to cooperate as business partners in our supply chain based on the understanding of the objective of the Basic Procurement Policy with the aim of enhancing corporate value of both Cemedine and the suppliers.
- We request our suppliers to provide proposals on streamlining and other initiatives in accordance with economic rationality.
- We request our suppliers to disclose their initiatives regarding compliance, human rights, occupational safety, the environment, quality, safety, etc. and fulfill CSR through collaboration.

# Responding to Customer Needs

## Participation in Exhibitions

We value communication with our customers. Exhibitions are valuable opportunities for them to experience our latest adhesion technology and for us to gain their feedback, which we reflect in product development to maximize our contribution to society.

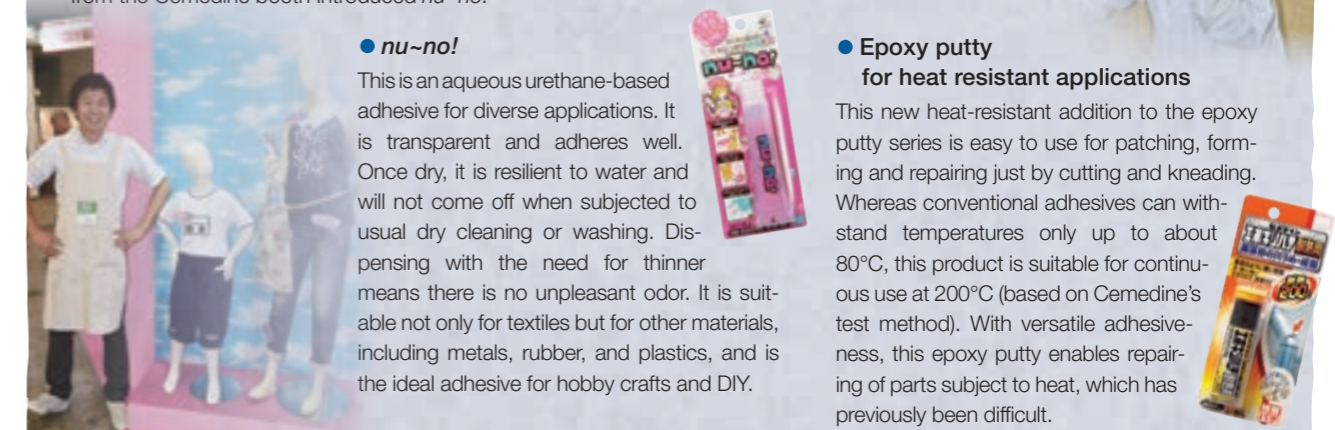
2015		2016	
January	NEPCON JAPAN	January	WEARABLE EXPO
March	ARCHITECTURE + CONSTRUCTION MATERIALS / DOMOTEX in Shanghai	March	ARCHITECTURE + CONSTRUCTION MATERIALS / Electronica China / DOMOTEX in Shanghai
April	JAPAN HOBBY SHOW	April	JAPAN HOBBY SHOW
May	SHIZUOKA HOBBY SHOW	May	SHIZUOKA HOBBY SHOW
July	ISOT	August	JAPAN DIY HOMECENTER SHOW
August	JAPAN DIY HOMECENTER SHOW		
September	ALL JAPAN MODEL & HOBBY SHOW		

### Topics

#### JAPAN DIY HOMECENTER SHOW

In August 2015, JAPAN DIY HOMECENTER SHOW (DIY SHOW), a leading comprehensive exhibition in Japan for the home center industry was held at Makuhari Messe. We publicized our adhesives for home centers with a particular focus on *nu~no!*, which is an adhesive for textiles that dispenses with the need for needles and threads, and on high-heat-resistant epoxy putty.

A news program by TV Asahi, "Good! Morning," featured the DIY SHOW, and its live broadcast from the Cemedine booth introduced *nu~no!*



**• nu~no!**

This is an aqueous urethane-based adhesive for diverse applications. It is transparent and adheres well. Once dry, it is resilient to water and will not come off when subjected to usual dry cleaning or washing. Dispensing with the need for thinner means there is no unpleasant odor. It is suitable not only for textiles but for other materials, including metals, rubber, and plastics, and is the ideal adhesive for hobby crafts and DIY.

**• Epoxy putty for heat resistant applications**

This new heat-resistant addition to the epoxy putty series is easy to use for patching, forming and repairing just by cutting and kneading. Whereas conventional adhesives can withstand temperatures only up to about 80°C, this product is suitable for continuous use at 200°C (based on Cemedine's test method). With versatile adhesiveness, this epoxy putty enables repairing of parts subject to heat, which has previously been difficult.

### Topics

#### WEARABLE EXPO

We participated in the second WEARABLE EXPO held at Tokyo Big Sight from January 13 to 15, 2016. The Cemedine booth welcomed over 10,000 visitors. We greatly appreciate their interest in our company and the products we offer.

Based on the "Wearable Cemedine" concept, we introduced conductive adhesives targeting the wearable market. Showcased at the Cemedine booth was a kimono with embedded LED chips that create unique aesthetic effects, which was produced in cooperation with a fashion designer and manufacturing partners. Many visitors stopped by the Cemedine booth, astonished by this kimono made of a thin translucent textile and endowed with extraordinary illumination capabilities. It enjoyed wide media coverage (about 240 mentions), including online news/topics (224 mentions), print media (18 mentions), and TV stations.

Cemedine's unique, flexible conductive adhesive also attracted attention. Textile manufacturers showed a particular interest in this product as they have hitherto found it difficult to respond to the wearable market. In addition, we identified needs for adhesion to silicone rubber, a material with great potential for wearable device applications but on which circuit fabrication is difficult, and for low-temperature curing.



# Development of High-Added-Value Products

## Efforts and mission to create highly functional products

Trends, notably the diversification of lifestyles and the advent of IoT and other transformative innovations, are fueling needs for multi-functional adhesives whose functionality goes way beyond bonding. Capitalizing on Cemedine's core technology to realize rapidly curable, flexible, large-area adhesion, Super-X continues to evolve. Key functions of adhesives for electronic components include heat dissipation to efficiently release heat from

increasingly compact equipment, ability to dismantle in order to reduce defects, and electric conductivity for flexible connection of sensor terminals. And in order to realize a sustainable society and respond to other pressing social needs, we are currently conducting research on on-demand adhesion, which enables separation whenever desirable, and we are already proposing various products based on this concept.



**Masato Akimoto**  
Executive Officer  
General Manager, Technology Division  
and Development Department

## Topics

### SX-UV Series (SX-UV100A)

#### Social issue

Reduction of environmental impacts of adhesion

#### Society's expectations

Development of amorphous viscosity adhesives to replace double-sided tapes

#### Features of the product/technology

Double-sided tapes are a simple and effective bonding solution. But with all the release papers and unused portions—the tape has to be cut to the shape of the adhesion surface, creates a large amount of waste whose disposal has a significant environmental impact.

The SX-UV series of liquid adhesives are an attractive alternative to double-sided tapes. Applied to the target and irradiated by ultraviolet rays, they immediately become sticky and bond easily. There are no release papers and they can be applied solely to the target, thus drastically reducing waste.

#### Inside story on product/technology development

Besides developing the adhesive, smooth introduction of the SX-UV100A to customers' production lines is essential, and this was indeed the part in which it took most of the time.

The SX-UV series targets users of double-sided tapes whose usage is very different from that of liquid adhesives. In collaboration with the users, we fine-tuned application of the adhesive and the method of curing. In some cases, we re-designed the applicators. Based on meticulous consideration of customer needs, we ensured the smooth introduction of the SX-UV series to customers' production lines. The SX-UV series continues to evolve.



## Other products in the SX-UV series



## Topics

### Tile Adjust - organic coating for substrate conditioning for exterior tiling

#### Social issue

Tiles coming off external walls

#### Society's expectations

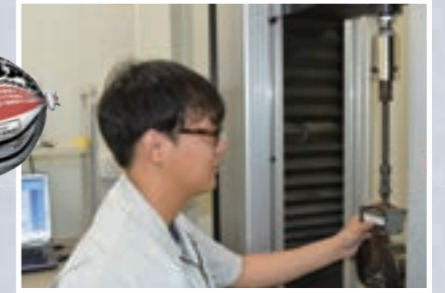
Consistent quality of exterior tiling

#### Features of the product/technology

Tile Ace Pro, an elastic adhesive for tiling, is widely used because it can realize tiling of consistently high quality. In particular, with Tile Ace Pro, tiles are far less prone to coming off than in the case of using mortar. But to achieve a flat, smooth surface, mortar is used to deal with any unevenness of the surface to be tiled, and consequently the advantages of elasticity have not been fully exploited. To resolve this issue, we have developed Tile Adjust, an elastic coating material for substrate conditioning. Using an elastic material also for adjusting uneven surfaces helps stabilize tiling quality. Tile Adjust is an environmentally friendly product compliant with JAIA 4VOC Standard, which was established by the Japan Adhesive Industry Association (JAIA) for control of volatile organic compounds (VOC), and is JAIA F 4-star certified.

#### Inside story on product/technology development

Tile Adjust is specifically designed to speed construction while reducing construction costs. This is achieved by simplifying work and through quick curing. Since ease of work is difficult to measure quantitatively, we solicited feedback from experienced tilers for reflection in product development. This was not straightforward because opinions tended to be highly subjective as criteria varied among tilers.



## Voice



**Hidetoshi Okano**  
Development Department

## Pick up Cemedine Automotive Co., Ltd.

### Adhesive for structures contributing to lighter vehicle bodies

#### Social issue

Mitigation of global warming, realization of sustainable society

#### Society's expectations

Development of energy-saving, environmentally friendly, low-carbon products

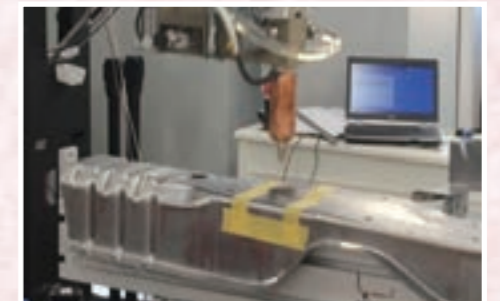
#### Features of the product/technology

Application of this adhesive, consisting primarily of epoxy resin, to structural components of automotive vehicle bodies and panels enhances rigidity and contributes to quietness. Moreover, by increasing the amount of its application to automotive vehicle bodies, it allows the thinning of steel plates, resulting in lighter automotive vehicle bodies.

#### Inside story on product/technology development

Epoxy resin, the principal component of this adhesive, has excellent properties in terms of strength, heat resistance and adhesion to steel plates. On the other hand, it is hard and brittle. To compensate for these disadvantages, it was necessary to add the attribute of toughness to the new adhesive. Moreover, we had to optimize application performance (discharge property, thixotropy, etc.) to make the adhesive suitable for customers' application conditions.

Although adding liquid rubber is common practice for endowing adhesives with toughness, with conventional technology it is difficult to ensure coating performance while enhancing toughness. It took many man-hours to introduce a new type of epoxy resin that is stronger and tougher than conventional epoxy resin and to achieve both toughness and the optimum viscosity for application performance.



## Voice



**Atsuhiko Suzuki**  
Development Department

# Respect for the Environment

Cemedine works to deepen awareness of chemical substances and ensure their appropriate management. To discharge our responsibility as a company that supplies chemical products, we clearly indicate information on product properties, safety, and handling methods and engage in various activities to protect the safety and health of all product users and the environment.

## Application of Environmental Standards Exceeding Legal Requirements

### Environmental Management Systems

#### Environmental management systems

The Quality Assurance Department, responsible for quality assurance, and the Quality Control Department, responsible for the quality of products manufactured at Cemedine plants, are quality assurance organizations operated under the Quality Assurance Division to enable customers to use Cemedine products with peace of mind.

In addition to these departments, we established the Health, Safety, and Environment Department in April 2015 as a new quality organization for the purpose of strengthening environmental management systems.

The Health, Safety, and Environment Department has two main responsibilities: 1) management relating to chemicals used in adhesives, including product labeling and other chemical regulatory management, green procurement, and workplace chemical risk assessment; and 2) health and safety management, including management of the occupational health and safety of Cemedine Group employees, risk management, and 5S.

#### Overseas product risk management and regulatory compliance

Risks relating to the environment are wide-ranging, and environmental laws and regulations in countries and jurisdictions around the world are being progressively tightened.

In light of this situation, the Environmental Management Group plays a central role in gathering information related to new environmental laws and regulations, analyzing risks, and ensuring legal compliance at Cemedine.

Specifically, the Group gathers the latest overseas information on chemical substances through seminars, industry associations, and consultants and has put in place a system for promptly complying with revisions

to laws and regulations.

Recent years have seen the enactment of laws and regulations to strengthen chemical risk management around the world, starting with the introduction of the REACH\* chemical control regulation in the EU. Korea, China and Taiwan are among those that have moved forward with regulation, the introduction of GHS\* is progressing in Southeast Asian countries, and SDS\* and other safety documents is being introduced in various countries as well.

When exporting products, Cemedine always confirms whether or not they are included on the existing chemicals lists of the U.S., Korea, China, Taiwan, the Philippines and elsewhere. We also carefully examine these existing chemicals lists at the product design stage.

When exporting substances not on existing chemicals lists, in addition to following all legal procedures, we register chemical substances contained in products that we manufacture overseas or import in accordance with their amounts and hazardous properties in compliance with the chemical control systems of destination countries.

China has introduced a new chemical notification system and substantially revised the registration system for hazardous chemicals in 2015, and raw materials and chemicals imported into China are now subject to registration in addition to those manufactured locally. The Cemedine Group has developed a system for registering chemicals in cooperation with local Group companies and is proceeding with registration of hazardous chemicals as required.

New chemicals registration systems were instituted in 2015 in Taiwan and Korea as well. The Cemedine Group made preparations through cooperation among the relevant organizations before these systems came into effect. In Taiwan, we

completed in 2015 registration on the existing chemicals list of all substances sold in the market. In Korea, we are steadily proceeding with registration of substances subject to registration announced in 2015 in compliance with the new system.

Thailand and other Southeast Asian countries moved toward development of new chemical control systems in 2016. Cemedine will obtain information on these regulatory systems in Asian countries in a timely manner and collaborate with Group companies to ensure smooth regulatory compliance.

\*REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): a system that requires businesses to evaluate the safety of existing and new chemicals

\*GHS (Globally Harmonized System of Classification and Labelling of Chemicals): a globally harmonized system of chemicals classification and labeling

\*SDS (Safety Data Sheet): a document containing information for the safe and appropriate handling of chemical products, such as product ingredients, hazardousness and toxicity, and handling precautions. The previous name, Material Safety Data Sheet (MSDS), was changed to Safety Data Sheet in JIS Z 7253, established in March 2012.

#### Response to the conflict minerals issue

Because of concern that a portion of the minerals mined in the Democratic Republic of the Congo and surrounding countries (tantalum, tungsten, tin, and gold) serve as a source of funds for armed groups that perpetrate human rights violations and environmental destruction, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) was enacted in the U.S. in 2010, obligating listed companies in the U.S. to disclose the use of these minerals.

Cemedine believes that sincerely addressing the issue of conflict minerals and disclosing information to customers is an aspect of fulfilling our social responsibility as a global company.

### Product Risk Management

In addition to complying with laws, regulations, and rules, Cemedine engages in various initiatives concerning product quality and safety in accordance with a precautionary approach to supplying safe, high-quality products to customers.

#### Appropriate evaluation of new products

Cemedine conducts a detailed design review (DR) at four stages, from R&D theme exploration to market analysis, prototype production, and productization.

We meticulously examine matters such as confirmation of the use

or non-use of hazardous chemical substances, conformity with customer requirements, and legal compliance from the initial stage (DR1) and engage in development with product safety as our first priority.



### Activities to Strengthen Chemical Information Management

#### 1. GHS-compliant SDS and product labels

The Cemedine Group issues SDS and attaches product labels that comply with the GHS adaptation of each country.

In 2015, we prepared and issued SDS and product labels for Asian countries that have implemented GHS, as well as SDS and labels compliant with the US OSHA's Hazard Communication Standard (HCS) aligned with GHS, which took effect in June 2015, and the EU CLP Regulation for mixtures.

#### 2. Acquisition and provision of contained chemical substance information

##### 2-1. Implementation of Green Procurement Guidelines

In order to provide eco-friendly products that can be used with peace of mind, Cemedine has instituted the Green Procurement Guidelines, controls environmentally hazardous substances in products, and conducts quality and environmental management surveys of suppliers of raw materials and packaging materials. Specifically, we require suppliers to submit SDS, JAMP\* MSDSplus (AIS), and completed questionnaires on environmental management. Furthermore, we study chemical-related laws and regulations in Japan and other countries and verify that our products do not contain prohibited chemical substances, such as substances banned under the RoHS Directive and substances of very high concern (SVHC). In addition to focusing efforts on new products, we review existing products as needed.

##### 2-2. Preparation of MSDSplus

Cemedine proactively provides and acquires information on chemical substances contained in products using the MSDSplus\* common format.

We issued revised versions of MSDSplus in January (substance list Ver. 4.030) and July (substance list Ver. 4.040) of 2015 and distributed them to customers through our distributors. We are also preparing to promptly meet requests for English and Chinese language versions of MSDSplus.

Meanwhile, since 2013 the Ministry of Economy, Trade and Industry has been developing a new information communication scheme (chemSHERPA\*) capable of sharing information on chemical substances contained in products throughout the entire supply chain. A data entry support tool for the new information communication scheme was released in October 2015 and is now being applied. The Cemedine Group will continue cooperation among the relevant organizations and actively engage in this initiative in preparation for full-scale implementation of the scheme.

\*JAMP (Joint Article Management Promotion-consortium)

\*MSDSplus: information communication sheets for specified chemical substances

\*chemSHERPA: a new information communication scheme capable of sharing information throughout the entire supply chain for the purpose of properly managing chemical substances contained in products and continuously complying with the evolving legal and regulatory regime

### Provision of Safety Information

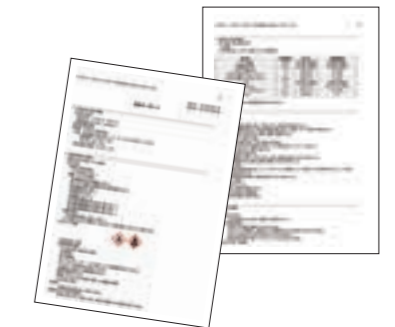
Cemedine provides product safety information using SDS, product labels, yellow cards (emergency response cards), and other means.

#### Use of safety data sheets (SDS)

SDS are documents that communicate detailed information on the handling and safety of chemicals that are extremely important for the provision of information relating to the safety of Cemedine products.

Therefore, we provide SDS to customers, distributors, shipping companies, and other companies that handle our products.

Cemedine's SDS for all products are GHS-compliant SDS. We are currently reviewing the SDS in accordance with the new JIS (JIS Z 7253) and enhancing safety information. In this way, we are ensuring the reliable disclosure and communication of information on the chemical substances in Cemedine products.



#### Labeling

The labels attached to product containers succinctly indicate GHS-compliant handling precautions and safety information to persons handling the products.

Cemedine is currently reviewing label information in conjunction with revision of SDS based on the new JIS standard (JIS Z 7253).

#### Carrying of yellow cards

Yellow cards are emergency response cards for use in the event of an accident during product transportation. The cards are printed with concisely worded information on applicable laws and regulations, product properties, emergency measures, and emergency contact information for the fire and police departments and Cemedine.

We distribute yellow cards to companies transporting chemicals and ensure that they are carried during transportation.

## Chemicals Management Committee

Representatives from the plants and divisions responsible for purchasing, development, sales, quality, and other functions gather for regular monthly meetings of the Chemicals Management Committee.

The Committee promotes dissemination and sharing of necessary information by communicating to these Cemedine organizations information on matters including laws and regulations in Japan, customer and industry green procurement activities, and regulations of countries and regional organizations pertaining to exports, which have been increasing in recent years, and defines the roles of each organization to enable prompt action. The Committee also reports on laws and regulations and information on the handling of newly registered raw materials.

The Committee discusses the handling of chemical substances, product safety, and other matters and communicates the information throughout Cemedine to enable pre-emptive risk management.

## Environmental Consideration in Products

Cemedine has formulated the Green Procurement Guidelines as comprehensive guidelines covering such matters as voluntary restrictions on chemical substances used that take into consideration chemical-related laws and regulations, customers' environmental procurement (green procurement) policies, and other requirements. The Guidelines are an important consideration in product development and are the basis for a step-by-step review of existing products now in progress.

## Environmental Measures for Products for Construction Applications

The table below provides an overview of Cemedine's environmental measures for adhesives and sealants for construction applications.

Law and Regulations	Target Substances	Standard	Indication on Products
Poisonous and Deleterious Substances Control Act	Deleterious substances designated by law and cabinet order	Methanol, toluene, xylene, formaldehyde, etc.	Intentional use prohibited (Cemedine internal standard)
Industrial Safety and Health Act	Substance prohibited for manufacturing	Asbestos	
Ministry of Health, Labour and Welfare guideline	Substances with indoor aerial concentration guideline levels	Formaldehyde and 13 other substances	Compliance with the 4VOC standard (JAIA)
		Toluene, xylene, styrene, ethylbenzene	
Building Standards Act	Substance with regulated diffusion rate (speed)	JIS standard (construction and wood adhesives)	F☆☆☆☆ (F 4-star) (JIS)
		Japan Adhesive Industry Association standard	F☆☆☆☆ (F 4-star) (JAIA)
		Japan Sealant Industry Association standard	F☆☆☆☆ (F 4-star) (JSIA)

## Analysis and Technological Enhancement

Cemedine periodically outsources to external organizations the analysis of key products to determine whether they contain harmful ingredients, such as substances restricted under the RoHS Directive\* and halogen substances.

In internal analysis, the plants and various departments, such as those in charge of development, production technology, and quality control, select the analyses they require from a wide variety of analyses including F 4-star standard (JIS, JAIA, JSIA) product formaldehyde analysis and VOC (toluene, xylene, styrene, ethylbenzene) analysis of 4VOC standard (JAIA) compliance of products. Cemedine strives for reliable measurement by increasing the accuracy of each type of analysis.

\*RoHS Directive: a European Union (EU) directive on the restriction of use of certain hazardous substances in electronic and electrical equipment



JAIA F☆☆☆☆

JAIA 4VOC基準適合



## Environmental Consideration in Products for Construction Applications

From the perspective of continuity of operations, the Health, Safety, and Environment Department is involved in the following matters as an organization engaged in compliance management, which has become an increasingly important priority.

First of all, to protect both the global and local environment and the safety of people who use adhesives, we engage in chemical management of raw materials in order to supply adhesives that are as safe as possible. Secondly, we manage the

occupational health and safety of Group employees involved in adhesive manufacturing and manage chemical handling safety.

Although this is low-profile activity that takes place behind the scenes, we take pride in doing work that helps protect the global environment and the safety of customers and employees.

# Environmental Initiatives

## Environmental Policy

In 2003, Cemedine formulated an environmental policy that forms the basis for company-wide environmental activities.

### Basic Policy

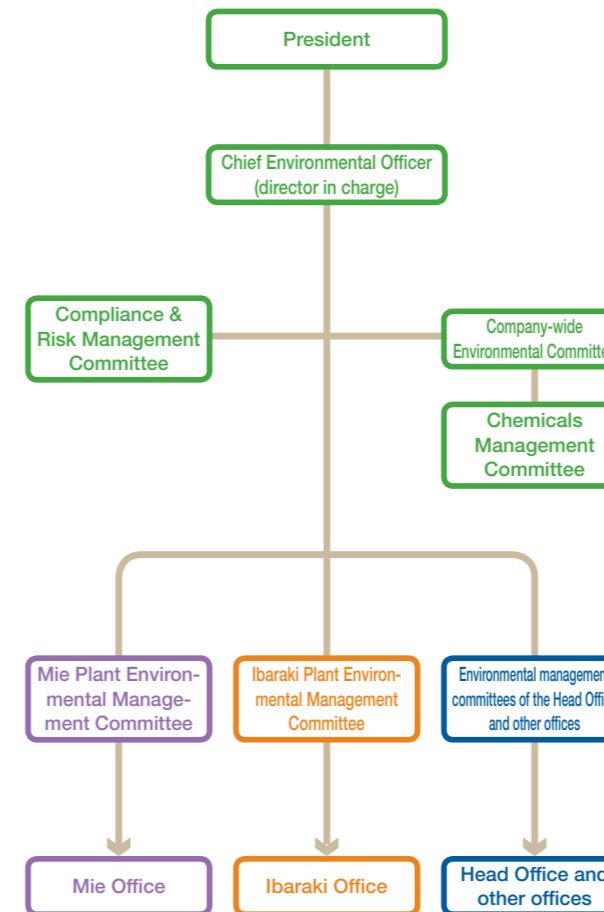
Recognizing the importance of the environment as well as the finite nature of resources, all employees of Cemedine Co., Ltd. continually strive to conserve, protect, and improve the environment. Cemedine aspires to be an environmentally responsible company that pursues business development imbued with concern for the environment. We endeavor to achieve harmony between social responsibility and business activities.

### Action Guidelines

The following are guidelines to be observed by all employees of Cemedine Co., Ltd. in order to harmonize the business activities of developing, manufacturing, and marketing adhesives, sealants, and related products with protection of the global environment, and thus ensure Cemedine is an environmentally responsible company capable of sustainable development.

- 1 Make consideration of impacts on health, safety, and the environment in all business activities from product development to disposal a key management priority and a focus of company-wide efforts.
- 2 Proactively promote the development of internal systems to protect the environment, the setting of environmental impact reduction targets, and environmental protection activities and further raise awareness of the environment through these activities.
- 3 Proactively engage in environmental impact reduction throughout product life cycles by such means as conservation of energy and resources, recycling, and waste reduction for the purpose of environmental protection.
- 4 Thoroughly understand the environmental regulations of national and local government bodies and industry associations, establish voluntary standards as necessary, and comply with these regulations and standards.
- 5 When exporting products and conducting business abroad, give due consideration to protection of the local environment and local laws and regulations and strive to implement all necessary measures.

## Promotion structure



## Environmental Management Program

Cemedine has formulated a company-wide environmental management program, which serves as guidelines for the environmental management activities of the Group's business sites, and made the program the standard for the environmental activities of each business site.

### Company-wide Environmental Management Program

- 1 **Identification and reduction of resource and energy consumption**
  - Reduce consumption of electricity and heavy oil.
- 2 **Identification and reduction of the amount of waste discharged**
  - Reduce waste.
- 3 **Environmental conservation**
  - Reduce emissions of volatile organic compounds (VOC), a cause of air pollution.
  - Comply with environmental laws and regulations.
  - Consider the environment when introducing and updating buildings and facilities.
  - Promote green purchasing.
- 4 **Identification and reduction of chemicals use**
  - Reduce consumption of hazardous chemical substances.
  - Assess the environmental impacts of chemicals used.
  - Identify consumption of packaging materials.
- 5 **Development of eco-friendly products**
  - Promote the development and sale of eco-friendly products.
- 6 **Environmental information disclosure and external communications**
  - Disclose the details of environmental activities.
  - Contribute to communities and society through corporate activities.

# Business Activities and Environmental Impacts

## Input and Output of Chemical Substances

### INPUT

#### Raw Materials

Rubbers	207 t	Organic chemicals	1,457 t
Resins	8,883 t	Inorganic materials	10,201 t
Oils, fats and solvents	2,707 t	Other materials	383 t

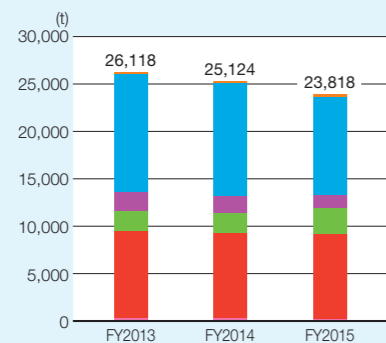
**Electricity** 4,860,000kwh

**Fuel** 1,090kl

**Water** 70,000m<sup>3</sup>

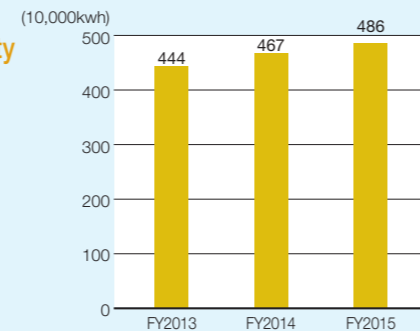
#### Raw materials

- Other
- Inorganic materials
- Organic chemicals
- Oils, fats and solvents
- Resins
- Rubbers



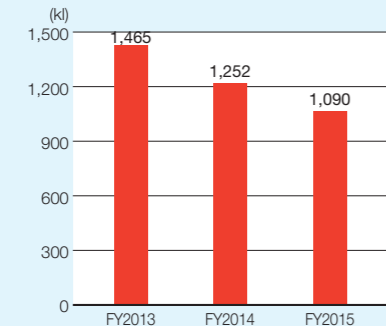
Sealants for construction account for a large proportion of the production volume (t) and a majority of these products are composed of inorganic materials. In fiscal 2016, the purchased volume of inorganic materials decreased because of consumption of work-in-process inventories. Consequently, despite little change in the purchased volume of other raw materials, the total purchased volume of raw materials decreased compared with fiscal 2015. A downward trend in the sales composition of rubber-based and resin-based adhesives and sealants requiring solvents and an upward trend in the sales composition of adhesives and sealants without the need for solvents continued. Overall, sales of sealants for construction and adhesives for interior and exterior work decreased, reflecting a decrease in the number of new housing starts.

#### Electricity



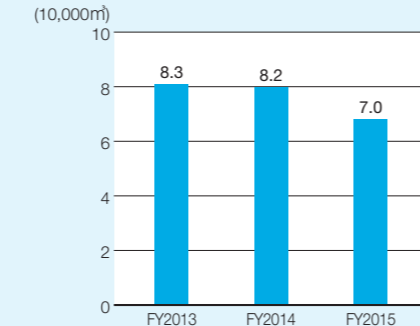
The Development Department, which is responsible for design and development of products, uses numerous facilities that consume electricity, such as testing facilities using heat. Thus, among Cemedine sites without in-house power generation, the Development Department's power consumption is large. Power consumption increased compared with 2014 because the Development Department used more testing facilities continuously. Nevertheless, our plants are continuing their efforts to level electricity demand by means of the use of midnight power and efficient operation of a co-generation system.

#### Fuel



Shutdown maintenance of the power generator of the co-generation system at the Ibaraki Plant resulted in a lower facility utilization rate. Thus, consumption of heavy oil used as fuel decreased. In addition, total consumption of fuels decreased because operation of certain plants was stopped temporarily owing to the change of the production method after outsourcing a part of the processes for emulsion products.

#### Water



Production of emulsion products involves use of water as a raw material. However, owing to the change of the production method after outsourcing a part of the processes for emulsion products, we no longer use water as a raw material for products. Thus, total water consumption decreased.

### OUTPUT

**Products** 25,218t

**CO<sub>2</sub>** 5,478t

**Waste** 1,187t

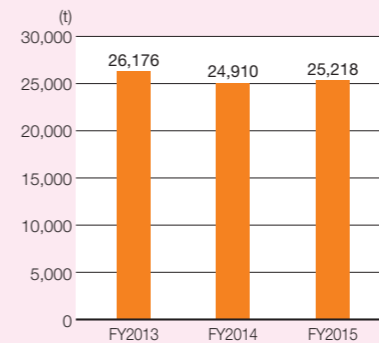
**Volatile organic compounds (VOC)** 11.0t

CO<sub>2</sub> emissions: Calculated based on electricity consumption

VOC emissions: Calculated by multiplying consumption of the substances designated by the Japan Adhesive Industry Association as priority substances subject to reduction by certain coefficients [n-hexane, cyclohexane, toluene, xylene, methanol, ethyl acetate, acetone, methyl ethyl ketone, rubber solvent]

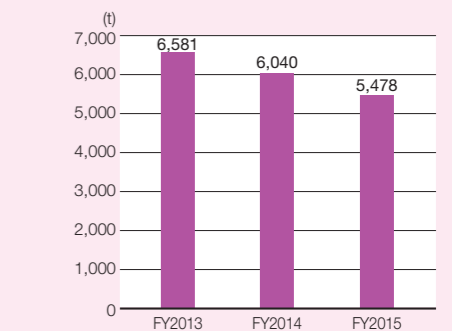
Scope: Ibaraki Plant, Mie Plant, Cemedine Chemical Co., Ltd.

#### Products



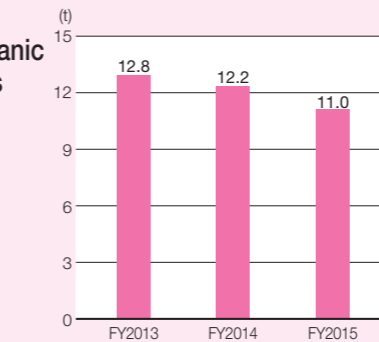
A downward trend in the sales composition of rubber-based and resin-based adhesives and sealants requiring solvents and an upward trend in the sales composition of adhesives and sealants without the need for solvents continued. Overall, sales of sealants for construction and adhesives for interior and exterior work decreased, reflecting a decrease in the number of new housing starts. In particular, the volume of production of sealants for construction was unchanged from the previous year despite a decrease in the purchased volume of raw materials compared with fiscal 2015 because of consumption of work-in-process inventories.

#### CO<sub>2</sub>



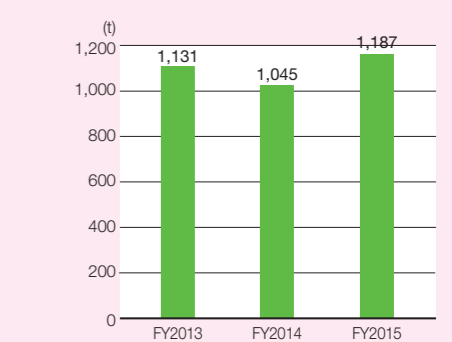
CO<sub>2</sub> emissions increased in line with the increase of electricity consumption. On the contrary, CO<sub>2</sub> emissions associated with fuel consumption decreased because fuel consumption was curtailed. The increase in CO<sub>2</sub> emissions associated with electricity consumption was fully offset by the decrease in CO<sub>2</sub> emissions associated with fuel consumption, resulting in a decrease in overall CO<sub>2</sub> emissions by 562 t or 9.3%. The CO<sub>2</sub> emission intensity also decreased by 3.7%.

#### Volatile organic compounds (VOC)



In recent years, a downward trend in the sales composition of rubber-based and resin-based adhesives and sealants requiring solvents and an upward trend in the sales composition of adhesives and sealants without the need for solvents continued. Therefore, consumption of organic solvents used for manufacturing of products continued to decrease, resulting in a decrease in VOC emissions.

#### Waste



The volume of waste discharged mainly from plants is greatly affected by the yield of manufacturing processes. On the other hand, an increasing trend toward high-mix low-volume production reflecting user requirements is leading to deterioration of yields, resulting in an increase in emissions of industrial waste per production unit. As industrial waste accounts for almost all waste, the amount of waste discharged increased by 13.5% from fiscal 2015 and the waste emission intensity based on the production volume increased by 3.0%.



# Quantitative Evaluation of Environmental Management

## Results of Company-wide Environmental Management Program

- Improved
- △ Improved but insufficient
- × Not improved
- Not evaluated

	2013	2014	2015	Target	Result	Self-evaluation
CO <sub>2</sub> emissions (t)	6,256	5,823	5,478	-	Figures in the upper row were calculated based on the consumption of electricity, type-A heavy oil, and gasoline. Figures in the lower row are based on the report in accordance with the Act on Promotion of Global Warming Countermeasures. CO <sub>2</sub> emissions from energy consumption decreased 345 t (5.9%). CO <sub>2</sub> emissions to be reported to the authorities under the Act on Promotion of Global Warming Countermeasures decreased 286 t (5.0%). Incidentally, energy consumption reported to the authorities under the Act on the Rational Use of Energy decreased from 2,418 kl in the previous year to 2,377 kl (crude oil equivalent).	○
Electricity consumption (10,000 kwh)	466	497	526	Plants: 1% reduction per production unit Offices: 1% reduction	Electricity consumption increased from the previous year owing to the increased electricity consumption by the design departments. Electricity consumption per production unit of plants decreased 6.2%, but that of offices increased 17.9%. Thus, we were unable to reach the targets.	×
Volume of type-A heavy oil purchased (kl)	1,376	1,165	1,005	1% reduction per production unit	The volume decreased from the previous year. Owing to the change in production items, the volume per production unit decreased 14.8% and achieved the target of 1% reduction.	○
VOC emissions (t)	12.8	11.8	11.0	-	Figures are emissions to the atmosphere obtained by multiplying the consumption (purchased volume) of 9 substances designated by the Japan Adhesive Industry Association (JAIA) as priority substances subject to reduction by 0.0105 (coefficient determined by JAIA). VOC emissions decreased in line with the decline in production of solvent-type adhesives.	○
Volume of gasoline purchased (kl)	42	35	33	-	Decreased 2 kl because of less company vehicles and the switch to hybrid vehicles	○
Volume of copier paper purchased (10,000 sheets)	267	274	262	-	Virtually unchanged for several years	△
Water consumption (1,000 m <sup>3</sup> )	80	85	66	-	Virtually unchanged from the previous year	-
Volume of general waste (t)	49	69	68	100 t or less per year	Virtually unchanged from the previous year. The target of 100 t or less per year has been achieved continuously.	○
Volume of industrial waste (t)	906	830	1,006	5% or less of annual production	Industrial waste is discharged from plants due to change of production items and for other reasons. Industrial waste per production unit was 4.0%, an increase from 3.3% for the previous year, but the target of 5% or less was achieved.	○
Volume of hazardous waste (t)	36	61	40	0.5% or less of annual production	Hazardous waste is specially controlled industrial waste discharged from plants. Hazardous waste per production unit was 0.16%, having decreased from 0.24% for the previous year, and the target of 0.5% or less of annual production output has been achieved continuously.	○
Development of environmentally friendly products (number of products)	23	59	51	-	The number of products newly designed by the Development Department and released, excluding those of minor variations (color, specifications, etc.)	○
Sales of environmentally friendly products (million yen)	7,148	8,379	9,602	Maintain 30% or more of total net sales	The amount of sales of products bearing CCS mark (Cemedine's standard), JIS and JAIA F 4-star products, as well as JAIA 4VOC standard-compliant products. Their sales accounted for approximately 47% of Cemedine's net sales (20,521 million yen) and the ratio is on an upward trend.	○
Confirmation whether materials to be newly adopted are compliant with the Green Procurement Guidelines (number of cases)	21	17	16	-	Number of cases of confirmation in which raw materials to be newly adopted are compliant with Cemedine's voluntary Green Procurement Guidelines. The implementation rate is 100%.	○
Environment-related education and training (frequency)	73	43	56	-	Frequency of education events and training on prevention of environmental pollution, etc. mainly conducted at plants	○
Environmental incidents (number of incidents)	0	0	0	-	Number of occurrences of abnormality at plants. There were no incidents violating laws and regulations.	○
Second-party audit and third-party audit (number of audits)	3	2	3	-	There were no particular findings requiring corrective actions	○

Unless otherwise specified, the Head Office, Osaka Sales Office, Nagoya Sales Office, Ibaraki Office, Mie Office, and Development Center are within the scope.

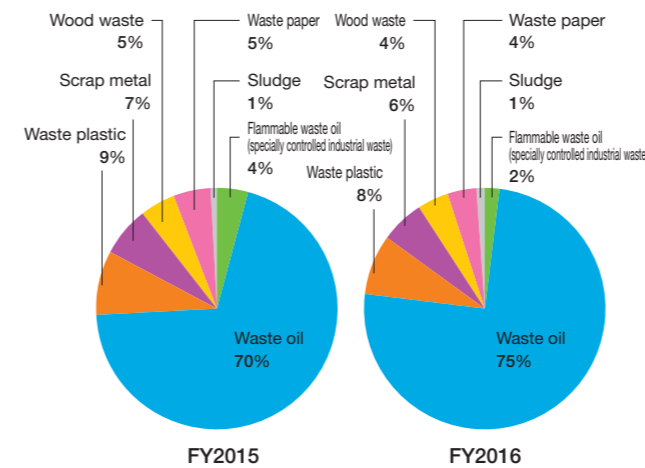
\*Figures for 2015 include figures corresponding to those of Cemedine Chemical Co., Ltd.

# Energy Consumption and Waste Management

## Energy Consumption and Waste Emissions (Results)

Waste emissions in fiscal 2016 increased in line with fluctuations in production output. Waste per 1 t of production output also increased compared with the previous year. We will work to reduce waste through continuous improvement of production process.

### Volume and breakdown of waste in FY2015 and FY2016 (Total of Ibaraki Plant and Mie Plant)



### Energy consumption (results)

Types of energy	Company-wide		Ibaraki Plant		Mie Plant		Okayama Plant	
	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016
Electricity (1,000 kwh)	3,332	3,542	1,481	1,624	1,851	1,918	1,345	1,316
Type-A heavy oil (kl)	1,164	1,004	1,125	963	39	41	88	86
Water (m <sup>3</sup> )	77,878	65,860	72,045	59,503	5,833	6,357	3,752	3,798
LPG (m <sup>3</sup> )	1,904	1,780	1,784	1,676	120	104	0	0

### Waste (results)

Waste category	Company-wide		Ibaraki Plant		Mie Plant		Okayama Plant	
	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016
Flammable waste oil (specially controlled industrial waste)	84.4	94.4	34.0	11.4	2.1	7.7	48.3	75.3
Waste oil	725.3	872.6	402.0	534.9	171.6	178.8	151.7	158.9
Waste plastic	74.6	80.9	48.9	53.6	21.8	22.6	3.9	4.7
Scrap metal	55.7	56.0	27.6	27.6	28.1	28.4	0.0	0.0
Wood waste	42.3	38.1	23.4	22.2	15.8	15.9	3.1	0.0
Waste paper	39.7	42.3	-	-	39.7	42.3	0.0	0.0
Sludge	6.1	7.5	6.1	7.5	-	-	-	-
<b>Total</b>	<b>1033.1</b>	<b>1191.8</b>	<b>542.0</b>	<b>657.2</b>	<b>279.1</b>	<b>295.7</b>	<b>207.0</b>	<b>238.9</b>
Recycled volume	235.4	178.7	167.5	157.1	67.9	21.6	0.0	0.0

## Reducing Environmental Impacts

We are striving to reduce environmental impacts in our handling of chemical substances and energy consumption.

### Appropriate management of chemical substances: Substances subject to PRTR (results in FY2016)

(No.)	Substance	Company-wide			Ibaraki Plant			Mie Plant			Okayama Plant		
		Release	Transfer	Total	Release	Transfer	Total	Release	Transfer	Total	Release	Transfer	Total
1	zinc compounds (water-soluble)	0	14	14	0	14	14	0	0	0	0	0	0
30	n-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	0	100	100	0	0	0	0	0	0	0	100	100
134	vinyl acetate	0	3	3	0	3	3	0	0	0	0	0	0
239	organic tin compounds	0	632	632	0	240	240	0	82	82	0	310	310
265	tetrahydromethylphthalic anhydride	0	15	15	0	15	15	0	0	0	0	0	0
298	tolylene diisocyanate	0	33	33	0	0	0	0	0	0	0	33	33
300	toluene	120	194	314	120	120	240	0	0	0	0	74	74
349	phenol	0	290	290	0	290	290	0	0	0	0	0	0
391	hexamethylene diisocyanate	0	87	87	0	0	0	0	0	0	0	87	87
392	n-hexane	0	207	207	0	170	170	0	0	0	0	37	37
405	boron compounds	0	342	342	0	280	280	0	41	41	0	21	21
411	formaldehyde	0	9	9	0	9	9	0	0	0	0	0	0
	<b>Total</b>	<b>120</b>	<b>1,926</b>	<b>2,046</b>	<b>120</b>	<b>1,141</b>	<b>1,261</b>	<b>0</b>	<b>123</b>	<b>123</b>	<b>0</b>	<b>662</b>	<b>662</b>

PRTR: The Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act) was promulgated in July 1999 to promote voluntary improvement of the management of chemical substances by business operators. The PRTR Act requires business operators to notify the government of the release amount (release to atmosphere and soil) and the transferred amount (discharge) of the designated chemical substances. This approach calls for business operators' voluntary initiatives to reduce the release of such chemical substances.

# Environmental Accounting

## Environmental Conservation Costs

(Thousands of yen)

Categories		FY2015		FY2016		Key initiatives
		Investments	Costs	Investments	Costs	
Business Area Costs	Pollution Prevention Cost	6,843	6,774	4,180	8,042	<ul style="list-style-type: none"> <li>● Installation of dust collectors</li> <li>● Replacement of boilers and air conditioners</li> <li>● Inspection of sump pits, boilers, and septic tanks</li> <li>● Use of Kasumigaura industrial water</li> </ul>
	Global Environmental Conservation Cost	14,680	1,062	9,931	2,033	<ul style="list-style-type: none"> <li>● Maintenance of air conditioners</li> <li>● Maintenance of thermostatic chambers</li> </ul>
	Resource Circulation Cost	0	46,571	0	33,723	<ul style="list-style-type: none"> <li>● Contracting of waste treatment</li> </ul>
	Subtotal	21,523	54,406	14,111	43,797	
Upstream/Downstream Costs		0	5,286	0	2,859	<ul style="list-style-type: none"> <li>● Installation of equipment for manufacturing environmentally friendly products</li> <li>● Contracting of recycling of containers and packaging</li> <li>● Product recycling (reprocessing)</li> <li>● Green purchasing</li> </ul>
Administration Cost		0	5,744	0	5,449	<ul style="list-style-type: none"> <li>● Environmental management activities (including ISO)</li> <li>● Environmental education</li> <li>● Environmental measurement</li> <li>● Analysis of hazardous substances</li> <li>● Site greening, beautification, and landscape preservation</li> </ul>
R&D Cost		0	4,431	0	6,980	<ul style="list-style-type: none"> <li>● Cost of development of environmentally conscious new products (purchase of analytical tools and their consumables)</li> </ul>
Social Activity Cost		0	3,851	0	4,090	<ul style="list-style-type: none"> <li>● Environmental preservation activities</li> </ul>
Total		21,523	73,718	14,111	63,176	

Scope of calculations: Ibaraki Office, Mie Office, Head Office, Development Center

## Environmental Preservation Benefit

(Thousands of yen)

Categories	Main measures	Amount	
		FY2015	FY2016
Reduction by energy saving	Reduction of consumption amount of electricity and heavy oil	2,534	(67)
Waste-related	Sale of valuables	8,860	6,810
Introduction of environmentally conscious products	Profit from environmentally conscious products	1,919,275	2,296,732
Total		1,930,669	2,303,476

Scope of calculations: Ibaraki Office, Mie Office, Head Office, Development Center

# Respect for People

Cemedine designs HR systems and creates work environments and also actively engages in human resource development to enable each Cemedine Group employee to demonstrate his or her abilities while working safely with peace of mind.

## Groupwide Human Resources Development

### Human Resources Development Initiatives

**Putting the right people in the right positions**  
Cemedine periodically rotates personnel and pursues various other initiatives to ensure appropriate assignment of personnel. Supervisors evaluate employees' abilities and their approach

toward work. Employees submit a self-evaluation report each year to the Personnel and Administration Department, following an interview with his/her supervisor, in which they evaluate themselves and express their desires

and ambitions. Based on these inputs, general managers of divisions play a central role in deciding personnel assignments to ensure that employees are assigned to appropriate positions at the time of periodic rotation.

## Diversity Initiatives

### Creating Workplaces Where People from Diverse Backgrounds Can Play an Active Role

**Basic concept**  
Cemedine has in principle eliminated the distinction between general clerical positions and career-track positions to enable all employees to work under the same conditions. In addition, we evaluate employees according to ability and performance, making no distinction in the personnel system according to academic background, gender, or recruited as new graduates or mid-career hire.

introduction of reduced working hour system and child care leave, support those who take medical or other leave of absence, and a variety of benefits as well as an employee loan program offered by the Welfare and Mutual Aid Association.

recruiting mid-career employees, we seek to raise the standards of business operations by hiring experts in various fields. Recruitment of mid-career employees are in two forms: ad hoc recruiting as the need arises and year-round recruiting in search of talented personnel, through which we have actually recruited mid-career employees.

**Recruitment and hiring**  
Cemedine hired seven new graduates in fiscal 2016, six male and one female. Four were recruited for technical positions, two for sales positions, and one for clerical work. In

		FY2012	FY2013	FY2014	FY2015	FY2016
Number of employees (persons)	Male	228	225	232	234	242
	Female	32	34	32	31	31
Number of hires (persons)	Male	7	5	7	6	6
	Female	1	2	0	1	1
Five-year retention rate of new graduate hires (%)		78.9	86.1	94.4	97.3	100.0
Employee turnover rate (%)		1.1	1.1	0.7	1.4	1.1
Average age (in years)	Male	41.1	41.3	40.7	41.4	41.8
	Female	40.3	40.1	40.9	40.5	40.7
	Total	41.0	41.1	40.7	41.3	41.7
Average length of service (years)	Male	16.0	16.1	15.4	15.4	16.6
	Female	18.5	18.1	18.6	17.9	19.2
	Total	16.3	16.4	15.7	15.7	16.9

**Promoting work-life balance**

Cemedine has implemented various regulations and programs aimed at promoting work-life balance, including monthly and annual overtime and holiday work regulations, a five-day workweek system, a reduced working hour system, and a flex-work system. The Welfare and Mutual Aid Association, in which all employees participate, provides benefits as employees' children progress through the education system and offers loans for education, leisure, and major purchases.



**Contribution of women**

Cemedine actively offers rewarding and challenging opportunities and work environments in which female employees can play an active role

**Voice**



**Takako Inoue**  
Tokyo No. 6 Sales Section

Although I'm aware of the increase in employment opportunities for women due to the Equal Employment Opportunity Act, the ratio of female employees remains low. On the other hand, there are many things women can do because there are so few of us, and I feel I am able to work freely and engage in rewarding work because there are no precedents. In sales, participation in trade shows and other events results in lots of interaction, and at times my life revolves around work. However, since I work in an environment in which it is easy to take time off, I think I have a great deal of freedom in balancing my private life and work.

**Refreshment leave**

Cemedine has an award program for employees with continuous service of ten, twenty, and thirty years. These employees are granted refreshment leave in accordance with their years

of service. There is also a program whereby employees reaching thirty years of service who wish to travel during refreshment leave receive financial support for that purpose.

**Voice**



**Chiharu Agawa**  
Development Department

Last year, I received ten straight days of leave for reaching the ten-year service milestone. It was my first long holiday since starting work, and I was able to get away from the daily pressures of work and pass the time leisurely. Looking back on the past decade, I worked for nine years in the Research Group before being transferred in my tenth year to the Development Administration Section, where I work utilizing my experience in the Research Group. The refreshment leave was a valuable opportunity for me to reflect on my future role providing support for the Development Department.

**Voice**



**Masatoshi Kinoshita**  
Manager, Audit Office

I reached the thirty-year service milestone last year and took leave in August using the company's refreshment leave program. Although I had just started at a new workplace last April due to staff rotation, I thought that if I didn't take the advantage of the leave at that time, I might never be able to do so. So, I used a financial contribution from the company to take a family trip and undergo a complete physical examination. The results of the physical examination made me realize how important my health is to my family and to me.

**Enhancement of child-rearing assistance programs**

Cemedine assists employees with young children by granting maternity leave and offering a reduced working hour system for employees raising children. We also have a childcare leave system and are enhancing assistance for employees with young children.

	FY2012	FY2013	FY2014	FY2015	FY2016
Number of employees who took maternity leave	1	2	1	2	0
Number of employees who took childcare leave	1	2	1	2	0

**Voice**



**Asako Takahashi**  
Adhesive Technology  
Consultation Center

I returned to work under the reduced working hour system in April this year after being on childcare leave since 2014. The long waiting lists for childcare facilities have become a social problem, and we had to wait for an opening after my childcare leave ended. In response, the company extended my leave by six months. I am very grateful that the company has a leave system that isn't a mere formality and has created an environment in which employees can request and take a leave with peace of mind. I am also thankful to be blessed with co-workers, the department, and the company that accommodated a change of workplace during my leave and showed consideration in the workplace after my return to work. Thanks to those support, my days are hectic but rewarding.

# Continuing to Flourish as a Company Needed by Society

The Cemedine Group has long been a company deeply rooted in local communities. Our plants and offices accord importance to communication with local residents, strive to maintain active exchanges with local communities, and engage in a variety of social contribution activities.

## Contributing to Local Communities

### Social Contribution Activities

**Support for raising the next generation of children**

Following enforcement of the Act on Advancement of Measures to Support Raising Next-Generation Children, since April 1, 2011 companies have been required to formulate and submit an action plan to "support raising next-generation children."

Cemedine established three goals and implemented support mea-

asures for the three-year period from November 30, 2012 to March 31, 2015. To prepare an employment environment supportive of employees raising children while juggling work and family responsibilities, the first goal was to "implement measures enabling employees raising preschool children to use a flex-work system."

As other measures to support raising next-generation children, the second

goal was to enhance the provision of internships and other work experience opportunities, and the third goal was to establish Children's Visiting Day to let children actually see where their parents or guardians work. Cemedine successfully accomplished the three goals during the period of the action plan.

**Pick up**

### Tokyo Terakoya

Cemedine participates, including through the dispatch of instructors, in Tokyo Terakoya, an educational initiative organized by Tokyo Junior Chamber as an aspect of occupational studies, mainly for second-year junior high school students. People in various occupations are dispatched as instructors to junior high schools in Tokyo's Shinagawa Ward, where the Cemedine Head Office is located. They speak to the youngsters about the meaning of work and the importance of communication, to encourage the students to expand their horizons. Instructors include television directors, physicians, police officers, writers for TV and radio, architects, flight attendants, and company owners in addition to employees dispatched by companies.



**Pick up**

### Meisei University internship

On Monday, August 3, 2015, Cemedine held an internship for eighteen third-year students of Meisei University at Gate City Hall in the Gate City Osaki complex in Tokyo.

For the past few years, Cemedine has held a one-day internship with a lecture format together with Meisei University. Since the university left the lecture content to the discretion of Cemedine this year, we explained the science of adhesives in a lecture that included hands-on experience. Also, from the perspective of employers, we helped the students prepare for job-searching next year by explaining the keys to success when seeking employment.

Although, mindful that most of the participants were liberal arts majors, we kept the explanation of adhesives simple, they seemed to find it quite challenging. However, the students clearly enjoyed the hands-on experience, which involved free experimentation with bonding using elastic adhesives, instantaneous adhesives, and other adhesives and wooden and metallic substrates provided by a Cemedine plant. We want to continue taking advantage of such opportunities to interact with students.



Pick up

### Shinagawa Workplace Walk

Cemedine supports the Shinagawa Workplace Walk, operated by the Future Education Promotion Organization to foster a spirit of initiative among junior high school students while introducing them to the world of work. In November 2015, we welcomed students from Shinagawa Ward for an explanation of Cemedine's business and a workplace tour, after which Cemedine employees and students engaged in a discussion about the meaning of work, the students' aspirations for the future, and how they can prepare for their future now. Even students who initially found it difficult to think constructively about their future eventually showed positive attitudes, such as a determination to study hard out of a desire to engage in socially beneficial work.



Voice



**Yuri Shiozaki**  
Personnel Section, Personnel and Administration Department

Our explanation of Cemedine's business and the roles of individual employees appeared to encourage the students to grapple with the meaning of work and the significance their current studies. I hope to continue communicating the role of Cemedine to people in the local community while helping foster the young people who will be forging our society in the future.

## Timely and Appropriate Disclosure of Information

### Basic Policy on Information Disclosure

#### Basic policy on information disclosure

The Company engages in timely and appropriate disclosure of information to shareholders and the wider investor community through business reports, the corporate website, and other media. We disclose information on corporate decisions and facts that may affect investment decisions, information concerning financial results, and any material change or cancellation of information that has already been disclosed. We promote understanding of Cemedine by actively and fairly disclosing not only important management matters, but as much other information as possible to meet requests of our investors, such as management interviews and articles on Cemedine's history and products.

#### Overview of the timely disclosure system

Under the internal system for timely disclosure of corporate information, the general manager of the Administration Division serves as the information officer. The Company observes laws and regulations and the rules of the Tokyo Stock Exchange while striving to ensure timely and appropriate disclosure. The information officer plays a central role in considering whether corporate decisions and facts that may affect investment decisions constitute information requiring

disclosure and endeavors to ensure a prompt action when disclosure is necessary.

#### Disclosure of IR information

The Company uses the corporate website to engage in timely and appropriate disclosure of financial results, news releases, and other information to diverse stakeholders. The Company also sends a business report containing a message from management and a business review to shareholders once every six months.

IR Schedule	
May	Announcement of financial results
June	Ordinary General Meeting of Shareholders
August	Announcement of first-quarter financial results
November	Announcement of second-quarter financial results
February	Announcement of third-quarter financial results

\*The Company discloses any facts requiring disclosure in a timely manner.

### Basic Policy on Profit Distribution

#### Basic policy on profit distribution

The Company considers providing stable dividends to shareholders to be one of the most important management priorities. The basic policy is to pay stable dividends while continuously securing profit, in order to realize business growth and enhancement of internal reserves for the purpose of strengthening the financial position while also according importance to returning profits to shareholders.

### General Meeting of Shareholders

#### General Meeting of Shareholders

The Company considers the General Meeting of Shareholders to be a valuable forum for dialogue between shareholders and management. Therefore, the Company ensures the early dispatch and web disclosure of a notice of convocation to provide shareholders sufficient time to consider the agenda items. The Company also includes visual contents in business reports to make them more readily understandable.

## Toward Sustainable Enhancement of Corporate Value

Cemedine is committed to developing governance systems worthy of the expectations and trust of society while promoting communication with diverse stakeholders, including customers, shareholders, investors, business partners, employees, and society.

## Enhancement of Corporate Governance

### Basic Approach to Corporate Governance

Formulation and promotion of the Corporate Governance Code by the Tokyo Stock Exchange has required all companies, not only those listed on stock exchanges to develop compliance systems, protect shareholders and the wider investor community, to enhance corporate value, and construct systems to achieve sustainable growth. Based on a governance framework developed with this in mind, the Cemedine Group aspires to be a company that brings benefits to all its stakeholders, such as stable business relationships with customers and raw materials manufacturers, continuity of employment for employees, places importance on product safety and protection of the global environment, and is a reliable long-term business partner, by developing products that anticipate needs and realizing a continuously profitable corporate structure.

### CSR Support Framework

The purpose of internal auditing at Cemedine is to contribute to the accomplishment of management objectives by complying with the International Standards for the Professional Practice of Internal Auditing of the Institute of Internal Auditors (IIA) under the governance, risk, and compliance framework developed by the Board of Directors.

The Internal Audit Office prepares an auditing plan covering all departments based on internal audit regulations and a risk assessment and, from a fair and independent standpoint, assesses the status of business execution from the perspective of legality and rationality. The Office proposes improvements and corrective actions to audited departments as necessary. Audit results are periodically reported to the Board of Directors.

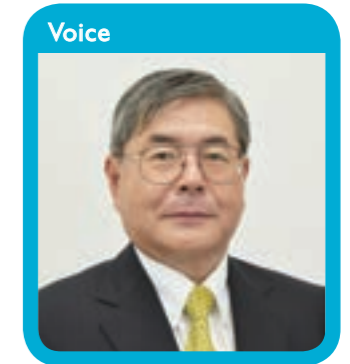


**Takao Oikawa**  
Outside Director

Nearly a year has passed since I joined the Cemedine Board of Directors as an outside director. The Board consists of members with differing experience and knowledge selected to perform a practical function, not merely to fill seats. At Board of Directors meetings, the internal and outside directors and Corporate Auditors join together in a frank exchange of views and vigorous discussion on management issues relating to domestic and international markets.

I consider my role as an outside director to be not only to perform management oversight by objectively commenting from an outside perspective and those of diverse stakeholders on management. I have business experience, mostly in sales, in an industry related to civil engineering and construction, a key market for Cemedine, and I think that my background can be of benefit to the Cemedine Group.

I expect realization of the Cemedine Pride 2023 to further enhance brand value and ensure that customers turn to Cemedine for any of their adhesive needs.



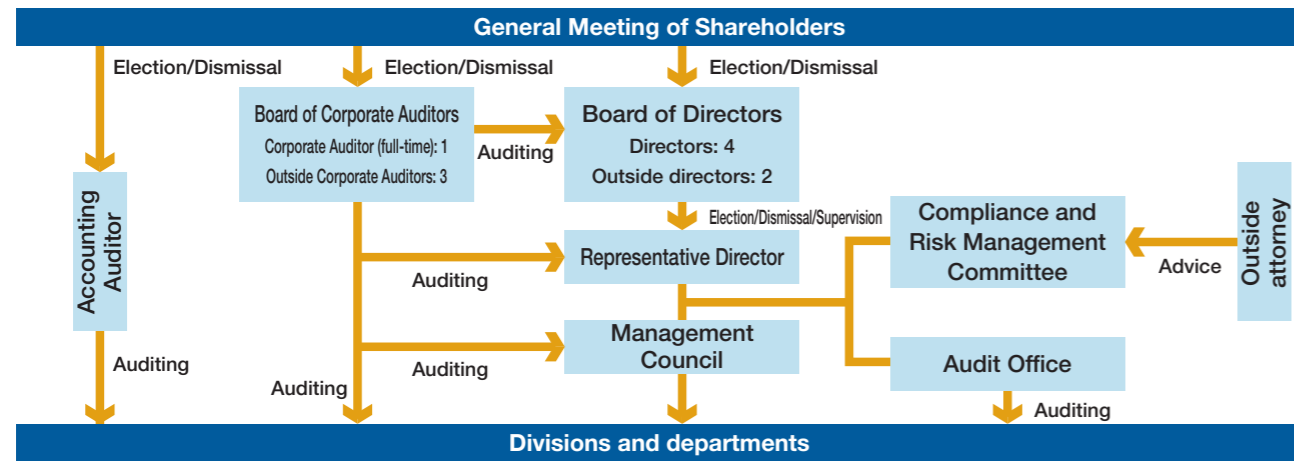
**Chiharu Komachi**  
Outside Director

I have served as an outside director of Cemedine since June 2015. I worked for approximately thirty years at a trading company and five years at a bank, during which time I gained experience in sales, corporate planning, and other functions as well as through overseas assignments in Moscow, Dusseldorf, and London.

Although I have only one year of experience at Cemedine, something I have become acutely aware of through many years in business is that the fundamentals of business are essentially the same everywhere. What is of vital importance is to ascertain customer wants and needs and the situation within a company, to clearly recognize the company's mission, and to maintain high ethical standards among officers and employees. I consider my role as an outside director to be to ensure that what is considered common sense within Cemedine is not nonsense in society by expressing my opinions candidly from my own perspective.

With regard to CSR activities, it is my belief that, while it is of course necessary for a company to engage in social contribution activities, CSR activities should first and foremost center on social contributions through business activities.

Corporate governance structure



# Compliance and Risk Management

### Cemedine Group Code of Conduct

**Basic Philosophy**

The officers and employees of the Cemedine Group abide by laws, regulations, and internal rules in the execution of business and behave as sensible members of society whose motto is "Fairness and order, integrity and trust."

**Compliance Rules**

- 1 Abide by laws and regulations and never accord priority to business expedience.
- 2 Follow the Rules of Employment and other internal regulations, respect each other's individuality, and strive to improve the work environment.
- 3 Accord the highest priority to the safety of society and employees.
- 4 In business execution, strive to collect information on risk factors and prevent risks from materializing.
- 5 Treat business partners with integrity and fairness and build business relationships worthy of trust.
- 6 Appropriately handle information obtained through work and third-party intellectual property rights and do not divulge insider information, personal information, or internal confidential information.
- 7 Respond resolutely to antisocial forces and avoid any connections whatsoever.
- 8 Strive to correct any words or actions violating the Code of Conduct of which you become aware and promptly report the matter to a manager or the Compliance & Risk Management Committee.

## Compliance Promotion Framework

The Company has established the Compliance and Risk Management Committee as an organization for the purpose of maintaining compliance and appointed each division and department manager as the compliance officer responsible for compliance in his or her organization.

The Committee has prepared the Cemedine Group Compliance and Risk Management Manual setting out the basic rules for compliance and risk prevention and strives to inculcate compliance in all Group employees. In particular, the Committee distributes the Cemedine Group Code of Conduct, established in the Cemedine Group Compliance & Risk Management Manual, to all employees in a booklet that employees are required to have with them at all times. Furthermore, the Basic Philosophy and Code of Conduct are read aloud once a month at department and section morning assemblies

or meetings to ensure that everyone knows and practices them.

## Business Continuity Planning

Cemedine considers the occurrence of an emergency to be a business risk, and the Compliance and Risk Management Committee supervises business continuity planning (BCP). Based on the lessons learned from the Great East Japan Earthquake, the Committee has prepared a BCP manual that defines matters such as development of emergency response systems at the head office, the roles of each division and department in an emergency and preparations, and coordination with and instructions for each plant and distribution center.

The Committee is also examining matters such as the initial emergency response system at business sites other than the head office (Osaka and Nagoya Offices and Ibaraki and Mie Plants) and considering company-wide training using simulations.

## Information Management Initiatives

To manage information, Cemedine has installed mission-critical systems at an external server center where all business processing is performed centrally in an environment protected from external threats.

To prevent information leakage, transfer of information using USB memory devices or other information media is prohibited.

The Information Management Office collectively manages security for each information system and strives to prevent virus intrusion and unauthorized access from outside.

Personal information is strictly managed at the department level, and the status of information management is audited each year through internal auditing by the Audit Office.

## Approach to Risk Management

To manage risk, Cemedine has established the Internal Control Committee, chaired by the president, which defines the flow of work for each company function (sales, purchasing, manufacturing, settlement of accounts, etc.) and prepares work descriptions.

The Committee examines risks (factors that contribute to the occurrence of misconduct) and controls (actions that prevent misconduct from occurring) and designates particularly important controls as key controls. The Internal Control Committee, together with a certified public accountant, conducts audits and reports the results to the Kanto Local Finance Bureau in the Internal Con-

trol Report issued in the president's name.

In addition to these activities, the Compliance and Risk Management Committee has each division and department conduct its own risk survey, deal with any newly discovered risks, and report to the Committee (risk control self-assessment activities).

# Group-wide Quality and Safety Initiatives

## Cemedine Group's Quality Assurance System

The Cemedine Group has five manufacturing sites in Japan and four manufacturing sites overseas and make various products ranging from individual customers to products used at construction sites and in the production of electronic parts and automobiles. These products are employed in diverse fields in Japan and around the world. The Group continuously operates an ISO quality management system to ensure the supply of safe products of consistently high quality to customers. We will continue to review the system in light of the changing business environment while systematically raising the level of quality assurance.

temperatures, they may harden before use or hardening may be delayed.

Although few problems resulting from temperature control during distribution or use have occurred in Japan, to deal with a higher incidence of problems due to distribution and storage temperature accompanying increasing use in various environments overseas, Cemedine has begun employing handling methods for certain industrial adhesives similar to those used for perishable foods, including refrigerated distribution and storage.

We will continue to focus on the highest quality, making changes to ensure quality and the delivery of products in excellent condition.

### Audits of raw material manufacturers and contract manufacturers

The use of raw materials of reliable quality is essential for the stable

manufacturing of superior products. In addition, Cemedine contracts the production and charging of certain products to other companies in order to manufacture and supply a greater range of products. Accordingly, we conduct periodic and ad hoc quality audits of raw materials manufacturers and contract manufacturers. These audits cover changes in manufacturing processes and production sites. Through this auditing process, we confirm that the quality of each product is maintained.



## Quality assurance at Cemedine

Similar to perishable foods, the adhesives and sealants manufactured and sold by Cemedine have expiration dates. If products are not transported and stored at appropriate

## Quality Assurance System in Japan

Cemedine's Ibaraki Plant and Mie Plant have obtained and maintained for many years certification under the ISO 9001 international standard for quality management systems, which they utilize as a quality management standard. The Japan Industrial Standards (JIS) are another set of standards for product quality management established for each application and product type. Cemedine has acquired certification under a total of eleven JIS standards for adhesives for buildings, adhesives for wood, sealants for buildings, and adhesives for general work, which we utilize in product development and manufacturing.

Cemedine C, our flagship product, is an example of a JIS-certified adhesive for general work. Group

company, Cemedine Chemical Co., Ltd. (Okayama Plant) has prepared an equivalent quality management system for manufacturing Cemedine products. Although Cemedine Chemical has not obtained ISO certification, it applies internal quality management standards equivalent to those of Cemedine. Having obtained certification for three JIS standards covering adhesives for buildings and sealants for buildings, it has a production system capable of manufacturing the same JIS-certified products as Cemedine.

### Accommodation of second-party audits

In recent years, an increasing number of customers are according importance to the appropriateness of

manufacturing processes and requiring products manufactured through those processes to fully meet quality standards. Consequently, more customers are visiting plants to confirm manufacturing processes. We believe that the frank guidance we receive during such visits and consequent improvements to processes and facilities help us make better products.

Since issues raised by customers are often relevant to the requirements of other customers, we respond with horizontal deployment and standardization in mind. We recognize that offering assurance to customers through plant visits is a prerequisite for a reliable manufacturer and we intend to continue improvement activities in the coming years.

## Rigorous Compliance with the Industrial Safety and Health Act

### Initiatives

To maintain safety throughout all business operations, we strive to raise the level of health and safety by complying with laws and regulations

and by establishing necessary voluntary standards. Each business site maintains an organizational structure to promote health and safety

activities and engages in such activities. Furthermore, we pursue continuous *kaizen*, such as 5S activities, in all facets of the business.

### Experience-based safety training in Japan

On August 17 and 18, 2015, three employees (two Thais and one Japanese) of Cemedine (Thailand) and Asia Cemedine, Group companies with business sites in Thailand, visited the Ibaraki Office for health and safety training. This was Cemedine's first on-site health and safety training in Japan for employees of overseas Group companies.

The training content included an introduction to the Ibaraki Plant's health and safety activities, participation in a manufacturing site safety meeting, and an explanation of hazard prediction training (KYT) and the practice of KYT on the production floor. The trainees also participated in experience-based safety education concerning hazards, such as being caught in machinery and falls, which deepened their interaction with the plant employees.



#### Voice



Cemedine (Thailand) Co., Ltd.  
**Noppacun Paul kayan**

During work at a plant, something unsafe may happen at any time. Possible causes include people, facilities, and processes.

Participation in the SHEQ training workshop at Cemedine in Japan heightened my consciousness of the critical importance of safety. In addition, KYT sharpened my awareness that there are practical steps that we can take to reduce the number of accidents in the workplace.

I think the most important thing is for everyone to share the same awareness of safety. People are the most important asset.

#### Voice



Cemedine (Thailand) Co., Ltd.  
**Sutthipong Phatarajumruskul**

I am responsible for plant equipment, including safety. In August 2015 I received experience-based safety training at MOHKA company and learned about the importance of paying attention to safety before starting work. Since returning to Thailand, I have been making use of this experience at the plant in morning talks, KYT, and SHE patrols. I am grateful to my colleagues at Cemedine for the safety instruction.

#### Voice



**Katsumasa Tamura**  
Manager, Health and Safety Group  
Health, Safety, and Environment Department

The highlight of training this time was experience-based safety education. Employees in Japan participated together with the overseas trainees in experience-based learning to increase sensitivity to hazards. By experiencing hazards that we may not necessarily encounter in the normal course of work, the trainees refreshed their awareness of the importance of safety.

Moreover, to cultivate a safety culture that accords the top priority to safety, they resolved to enthusiastically engage in safety activities together inspired by the motto "Safety activities know no national borders!"

## Third-Party Opinion

### Dr. Kazuhiro Bai

Ph.D. in Business Administration  
Professor, Reitaku University, Faculty of Economics and Business Administration / Chikuro Hiroike School of Graduate Studies, Graduate School of Economics and Business Administration  
Deputy Director, Reitaku University Business Ethics and Compliance Research Center



In the Social and Environmental Report, Cemedine Co., Ltd. ("Cemedine") has systematically documented its engagement in CSR activities leading up to its centenary. I am pleased to provide the following third-party opinion with respect to the Company's CSR activities from the perspectives of promoting CSR accounting, which attempts to quantify CSR activities, and business continuity.

### Positive findings

One laudable aspect of this year's report is that Cemedine has instilled its corporate philosophy "Respect people and contribute to society by providing better products to greater numbers of people" in every aspect of its CSR activities, and moreover has linked this philosophy to preparation of the report. Cemedine's basic stance of engaging in CSR activities conceived with the corporate philosophy in mind and disclosing the process and results of activities in a report deserves recognition, and contributes greatly to Cemedine's appeal to internal and external stakeholders (pages 19-20).

A second aspect of the report deserving of recognition is Cemedine's documentation of its vision of globalization and concrete achievements as initiatives in preparation for the centenary (pages 11-14, 15-18). Providing a close-up look at initiatives to promote globalization, a matter likely to be of keen interest to readers, not only promotes reader understanding of business activities, but also contributes to strengthening of relationships with various stakeholders.

Furthermore, the development of a CSR management framework underpinning these characteristics reflects Cemedine's groupwide commitment to press forward with CSR activities, such as proactive efforts to strengthen corporate governance for sustained enhancement of corporate value (pages 38-41). This report successfully reflects the fusion of business activities aimed at making better products and CSR activities focused on connecting people, and Cemedine deserves credit for the excellent report content.

### Areas for improvement

Cemedine has made satisfactory improvement in linking governance-related information to CSR management to achieve the objective of sustained value creation, something I pointed out last year, as evidenced by development of a management framework to contribute to realization of a sustainable society (page 19 onward) and concrete initiatives to strengthen governance (page 38 onward) in the Cemedine Group's CSR section.

With regard to corporate information disclosure, expectations are high for disclosure of non-financial information and integrated reporting. An important key to communicating Cemedine's initiatives to stakeholders in a more concrete and easy-to-understand way is whether the company can somehow quantitatively assess non-financial initiatives and activities and convey this information to stakeholders. I hope that Cemedine will achieve growth as an industry leader and an enduring company by engaging in CSR activities that contribute to the realization of a sustainable society while directly addressing these challenges.

Faculty member of Reitaku University since 2001. President of Japan Society for Management Accounting, Vice President of International Conference on Business Management (ICBM), and Member of Japan Federation of Management Related Academies. Visiting professor, Faculty of Business, Bond University (Australia), in 2008. Author of numerous publications, including *Outlook on CSR Accounting* (Moriyama Shoten) and *Requirements for Corporate Survival: Five Basic Rules for Overcoming Environmental Changes* (Reitaku University Press).

## Response to the Third-Party Opinion

### Atsushi Saito

Executive Officer  
General Manager, Quality Assurance Division



I would like to thank Dr. Bai for offering his valuable opinions again this year.

We engaged in the activities he favorably evaluated with the aim of imbuing CSR initiatives with the corporate philosophy and deepening understanding of Cemedine among stakeholders. For the section Cemedine's Procurement Bonds the World, we used a dialogue format to convey the roles of Cemedine organizations involved in procurement in an easy-to-understand way in the words of employees. We expressed the Cemedine Group's achievements in overseas initiatives more concretely to help readers grasp the reality of what we are doing. Thanks to Dr. Bai's understanding that these business activities and CSR activities are linked, continuous activities and positive evaluation, we were able to confirm the direction for enhancement of corporate value.

Mindful of Dr. Bai's recommendations, we will continue efforts to instill responsible product development and production throughout the Cemedine Group, enhance the supply of safe and reliable products, and develop CSR activities that heed the voice of stakeholders and contribute to a sustainable society.