

**UNITIKA**  
We Realize It!

Corporate Social  
Responsibility Report 2017



Unitika Mascot Girl  
Rina Matsuda.

UNITIKA GROUP

**2017**

Unitika CSR Report

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### On the Publication of Our CSR Report

Amagasaki Spinners Ltd., the company of our origin, was founded in 1889, and played a role in establishing the foundation of Japan's modern industry. Today, in addition to our roots in the textile industry, we have expanded our business globally as a manufacturer of functional materials that range from a polymer business area composed of films, resins and nonwoven fabrics, to an advanced materials business area composed of glass fibers, glass beads and activated carbon fibers. We have transformed these into operations that each have distinctive characteristics.

Amagasaki Spinners was founded to save the former feudal retainers from impoverished circumstances after they lost their stipend due to Haihan-chiken (the abolition of feudal domains and the establishment of prefectures), as well as to revitalize the Amagasaki region through establishing a new industry. As shown in the reasons for our foundation, we have always believed that the purpose and significance of our activities lies in our contribution to society through various business activities.

Through our management philosophy of "contributing to society by connecting people's lives and technology", we are proud to have devoted ourselves to technological development that matches the current of the times, thereby providing new products and services that contribute to people's lives to support their enrichment.

#### Medium-term Management Plan

For our medium-term management plan that started in fiscal 2014, we have aimed to reform the business portfolio and achieve the early realization of our development strategies through striving towards the strengthening of our foundations as a manufacturer of functional materials centered on the polymer business area, while also implementing each initiative to improve our profits. As a result, most of our key initiatives were achieved according to the plan, and our financial situation has improved 1 year ahead of a schedule.

In order to strengthen the basis of our development for further progress, from fiscal 2017 onward we have established the new mid-term management plan "G" round 20 - to The Next Stage", with the 3 pillars of "G": Growth (development and nurturing), Global (internationalization) and Governance (corporate governance). Fiscal 2019, the last year of the new medium-term management plan, marks the 130th anniversary of our foundation as well as the 50th anniversary of the beginning of Unitika. For this milestone we will establish the foundation for our future development, with these 3 "G"s at the core to depict the image of our corporate group.

#### Fostering of Human Resources and Utilization of Diverse Human Resources

We uphold human resource strategies as one of our most important management strategies, in order to contribute to society through various business activities. This means "to utilize the skills and perspectives of various human resources", in other words, "diversity". Since our foundation we have had a culture of recognizing the importance of fostering human resources and turning it into action, such as through providing school education to our employees and their children.

From the time of our foundation until the early 1920s, certified private primary schools were located either within the factory or inside company housing. After the mid 1920s the educational system expanded, so these primary schools were either closed or donated to each region as it was decided that they had fulfilled their roles. However, in-house education was not abolished and remedial educational programs for basic subjects, as well as liberal arts subjects for speaking, manners, sawing, flower arrangement and abacus, continued to be passionately taught at dormitories.

Our basic philosophy for education has been consistently maintained, with most of the dormitory residents having received

education at evening high schools or evening two-year colleges from the mid 1950s, while today we have established a system of various in-house education and training programs for fostering human resources.

As for the utilization of human resources, the ratio for the recruitment of people with disabilities is 2.46% (as of the end of March 2017) as reported in the CSR report, which is a high standard compared to other companies. This is a result of our active efforts across all the offices and we believe it was realized thanks to the foundation we have as a company where various human resources can play active roles.

Moving forward, we will continue to cultivate our culture of "diversity" throughout the entire group, to establish a corporate culture that allows diverse human resources to utilize their various skills to produce results.

#### Measures to Prevent Misconduct Recurrence

We received an on-site inspection on March 1, 2016 by the Fair Trade Commission after being suspected of violating the Antimonopoly Act regarding bidding for textiles made of nonflammable vinylon or vinylon ordered by the Acquisition, Technology & Logistics Agency. Although we thoroughly cooperated with the investigation conducted by the aforementioned commission, we received a cease and desist order and a surcharge payment order by the commission on March 10, 2017 according to the Antimonopoly Act.

The Unitika Group has been working on the development of our governance system, the improvement of the corporate culture and entrenching compliance in response to compliance problems within the group, however, this incident shows our efforts were not enough.

By taking this matter very seriously and sincerely, the Unitika Group has been implementing measures to prevent any recurrence in all of our companies.

We have been implementing a variety of measures for each group company and all our employees, in line with the philosophy that cultivating a corporate culture that does not allow acts of dishonesty is the best way to entrench compliance. This has been done through revisions of the group governance compliance system, the clarification of our responsibilities through changes in the organization, the centralized management of information and the enhancement of our auditing capabilities.

Again, as a company that is "contributing to society by connecting people's lives and technology", we will regain your trust and contribute to the development of society even further with thoroughly entrenched compliance.

Thank you very much for your continuous understanding and support.

President Chief  
Executive Officer



**Notes on FY 2017 Report**

**● Release History and Period Covered**

We have released the Unitika Environmental Report once a year since 2002. In 2006, we expanded its content to include CSR activities and interactions with stakeholders. The target period of this report is fiscal 2016 (from April 1, 2016 to March 31, 2017), however, reports on some items are based on data after April 1, 2017.

**● Reference Guidelines**

This report refers to the Environmental Report Guidelines issued by the Ministry of the Environment.

**● What This Report Covers**

This report in principle covers activities by Unitika, Ltd. and the Unitika Group companies, both in Japan and overseas. However, the Environmental Report only covers the following range of items.

**Unitika Production Sites in Japan**

Uji Plant  
Okazaki Plant  
Sakoshi Plant  
Tarui Plant  
Tokiwa Mill  
Central R&D Laboratories

**On-Site Group Companies**

Ad'all Co., Ltd.  
Nippon Ester Co., Ltd.  
Unitika Glass Fiber Co., Ltd.  
Unitika Plant Engineering Co., Ltd.  
Unitika Trading Co., Ltd.  
Unitika Textiles Ltd.

**External Domestic Group Companies**

Osaka Dyeing Co., Ltd.  
Terabo Co., Ltd.  
Union Co., Ltd.  
Unitika Sparklite., Ltd.  
Unitika Spinning Co., Ltd.

**● Release Date and Format**

This report has been available for viewing on the Unitika website in October 2017. Since the inception of this report in 2002, Unitika has sought to minimize environmental impact by releasing it only on the website and not in paper format. The next report is scheduled for release in October 2018.

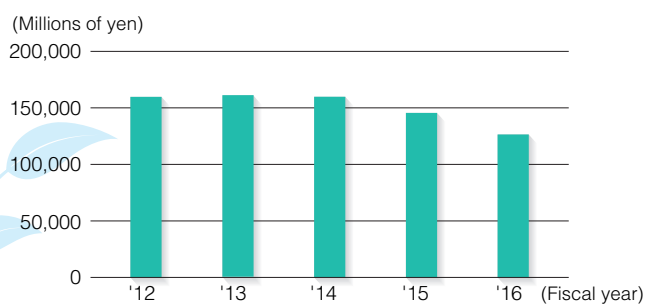
**● Terminology used in this report**

- CSR : Corporate Social Responsibility.
- Stakeholders : Customers, shareholders, suppliers, society, local communities, employees, and other individuals and organizations that have vested interests in a company.
- Corporate governance : Decision-making methods designed for the sound operation of a company
- Compliance : The observance of laws and corporate ethics.

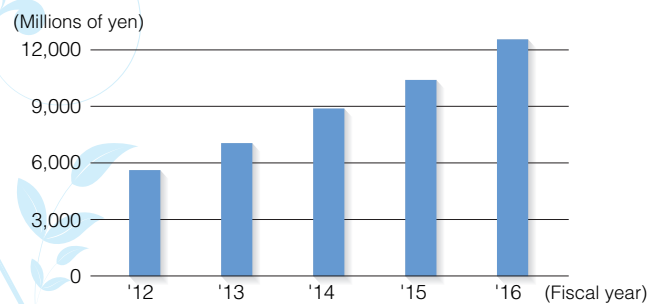
Company Overview

- **Name:** Unitika Ltd.
- **Founded:** June 19, 1889
- **Capital:** 100,450,000 yen
- **Osaka Headquarters**  
Osaka Center Bldg., 4-1-3 Kyutaro-machi, Chuo-ku, Osaka, 541-8566 Japan
- **Tokyo Head Office**  
Nihombashi-Nichigin Dori Building, 4-6-7 Nihonbashi-Hongoku-cho, Chuo-ku, Tokyo 103-8321, Japan
- **Central Research Laboratory**  
23 Uji-Kozakura, Uji-shi, Kyoto, 611-0021 Japan
- **Number of employees (consolidated):** 3,671 (as of March 31, 2017)
- **Sales (consolidated):** 126.2 billion yen (FY 2016)
- **Main business areas (consolidated):** Polymer business area: Manufacturing and sale of films, resins and nonwoven fabrics  
Advanced materials business area: Manufacturing and sale of glass fiber products, glass beads and activated carbon fibers  
Fiber business area: Manufacturing and sale of various fibers (threads, cotton, woven or knit fabrics etc.)  
Other: Design, construction management and facility maintenance of various plants

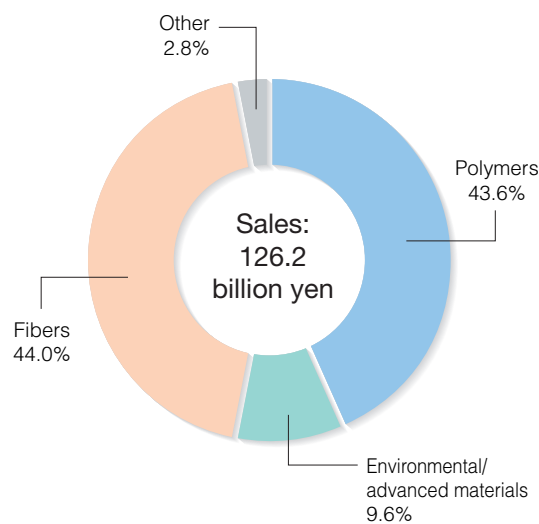
■ Sales(Consolidated)



■ Operating Profit (Consolidated)



■ Sales Share of Each Business Unit (FY 2016, Consolidated)



■ Unitika received an on-site inspection on March 1, 2016 by the Fair Trade Commission after being suspected of violating the Antimonopoly Act regarding the bidding of textiles made of nonflammable vinylon or vinylon ordered by the Acquisition, Technology & Logistics Agency. Although we thoroughly cooperated with the investigation conducted by the aforementioned commission, we received a cease and desist order and surcharge payment order by the commission on March 10, 2017 according to the Antimonopoly Act. The Unitika Group has been implementing measures to prevent a recurrence of misconduct. We are taking this matter very seriously and sincerely, and will strive for the prevention of recurrence with even further entrenched compliance.

## Our Philosophy

### "Contributing to society by connecting people's lives and technology"

Upholding history and supporting the present as we look to the future.

Unitika - a company of the future.

Unitika started out as a spinning company during the beginning of modern Japanese industries in 1889, and is transforming itself into a global company group centered on polymer technology that precisely understands the needs of the present and the future as it continues to evolve as a functional materials manufacturer.

Our philosophy to contribute to people's lives and support their enrichment through technology has been ever present amidst rapidly changing social situations and environmental issues, and it will never change.

Our role is to produce daily products and materials that substantially improve the quality of industrial activities and infrastructure development, and to create a product group that leads to the future that will come from all of these.

Through our materials used for parts of life that are sometimes not visible, or through products that directly connect with your lifestyle, we continue to provide reliable solutions to life in the present and the future, as well as for the planet.

## Corporate Governance

### Basic Policy

Through our management philosophy of contributing to society by connecting people's lives and technology, we at the Unitika Group aim to be a company with a clear social presence. We have worked to achieve stakeholder-focused management by pursuing governance strategies that include the enhancement of legal compliance and risk management and the timely and appropriate disclosure of information, and the implementation of rapid decision making.

Corporate governance will continue to be a key component of our corporate management activities.

### Structural Overview

Unitika's Board of Directors is comprised of 7 directors (including 2 external directors) and 4 auditors (including 2 external auditors). At Unitika, we apply the executive officer system to clarify the operational decision making/supervisory (governance) functions and the business execution (management) functions. In order to enhance the mobility and effectiveness of the management, we promote cooperation between the directors and the executive officers, while most of the directors also serve as the executive officers with some exceptions.

In addition, the Board of Directors is positioned as the "governance function" organization that is specialized in decision making and supervision. We have also set up the Management Council, which is comprised of all the directors, to deepen the directors' discussions on basic policy and issues of general management, as well as for early identification of management issues, efficient and speedy decision making for policies regarding measure planning and the timely implementation of measures. The Code of Authority regulates the authorization for the execution of business, while matters that are especially important are carefully examined and considered at the Management Council before the decision making is conducted at the Board of Directors.

As for the internal control system, we mainly collect information from inside the company and the group at the Risk Management Office. We have also set up the compliance committee, for which the President serves as chairman, as well as internal and external whistleblower contact points, that allow us to deal with such matters in a timely manner. Furthermore, we strive for the awareness of compliance through distributing the Unitika Charter of Corporate Behavior and the Unitika Action Standards to all of our executives and employees of the group, while conducting training accordingly.

Unitika regulates Basic Policy for Internal Control based on Companies Act and the Financial Instruments and Exchange Act, as well as setting up the compliance/risk management system led by the Risk Management Office and various committees. Under the Financial Instruments and Exchange Act, internal controls for financial reporting is dealt with mainly at the Audit Office, while internal control regarding offices are set up at our key business branches in order to establish the corporate framework for internal controls.

Internal Control

Basic Policy

Under the Companies Act, Ordinance for Enforcement of the Companies Act and Financial Instruments and Exchange Act, Unitika has created a system that ensures the adequate operation of our company and group, as well as the trustworthiness of our financial reports, as follows.

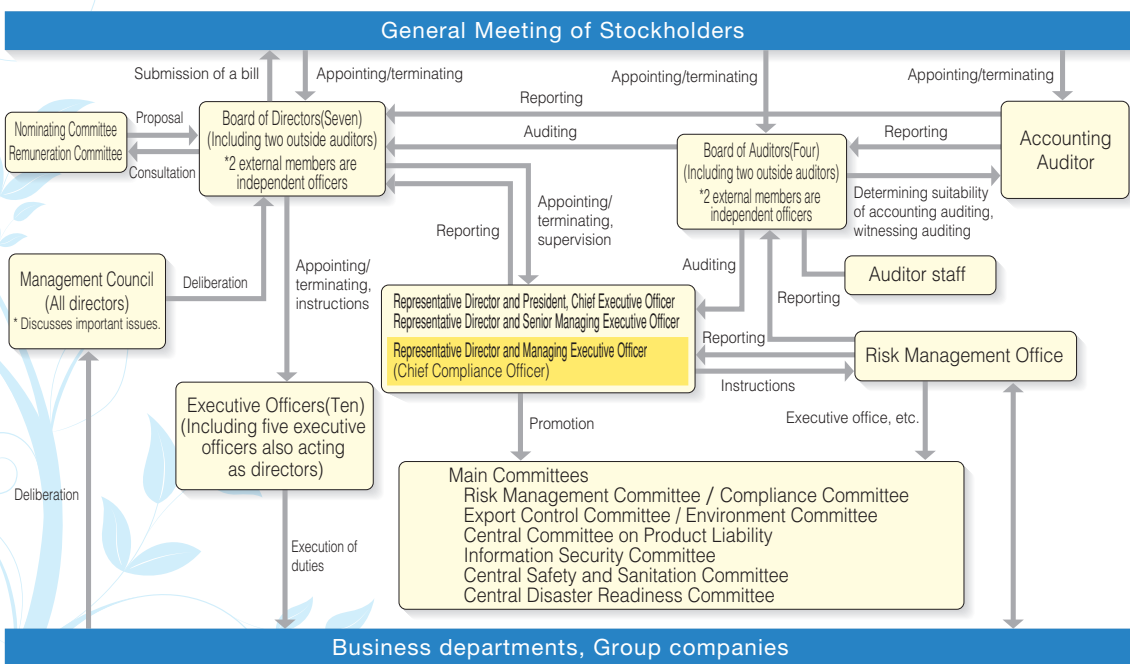
Unitika's Basic Policy for Internal Control (Item Headings)

1. Organization to ensure that the execution of job duties by directors and employees complies with all applicable legislation and the Articles of Incorporation
2. Items pertaining to saving/managing information on directors' execution of job duties
3. Regulations on loss hazard management; other organizational elements
4. Organization to ensure that execution of directors' job duties is performed efficiently
5. Organization to ensure suitability of operations done by corporate groups
  - 5-1. Items regarding reports to Unitika in relation to the execution of duties by directors of our group companies
  - 5-2. Regulations and other systems regarding the risk management for loss at our group companies
  - 5-3. System that ensures the efficient implementation of the execution of duties at our group companies
  - 5-4. System that ensures the conformity of the execution of duties by directors and employees of our group companies with laws, regulations and articles of incorporation
6. Organization to secure the reliability of financial reports
7. Items pertaining to the organization for employees, and to their independence from directors, when auditors ask for the appointment of employees to act as assistants
8. Items regarding the independence of the audit staff from directors
9. Items that ensure the effectiveness of the instructions given to the audit staff
10. Organization for reporting to auditors
  - 10-1. Organization for directors and employees to make a report to auditors
  - 10-2. Organization for directors, auditors and employees of our group companies, or those who received a report from them, to make a report to the auditors of our company
11. Organization that ensures the fair treatment of people who make a report to the auditors
12. Items regarding the procedures for the advanced payment or reimbursement of the expenses arising from the performance of duties of the auditors or the policies regarding the processing of other expenses or debts arising from the performance of duties of the auditors
13. Other organizational elements to ensure that auditing by auditors is performed effectively

Organization

The diagram below shows the organization used for corporate governance, and to ensure fair corporate activities. The basic elements correspond to Unitika's Basic Policy for Internal Control (outlined above). This organization is used to strictly enforce internal control-compliance, information saving/management, risk hedging, export control, increasing the execution efficiency of director job duties, and ensuring the suitability of operations.

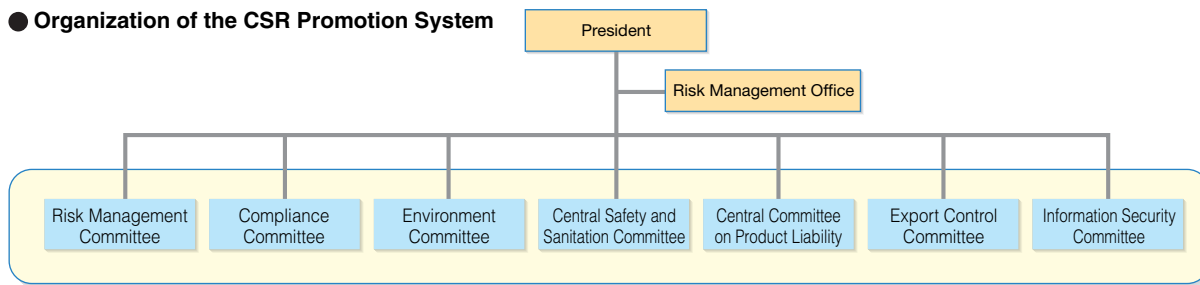
Organization



**CSR Promotion System**

Unitika's Risk Management Office is an organization created to promote and oversee all CSR activity areas, such as environmental awareness, safety measures, compliance and risk management. We have established a management system consisting of various committees and business divisions that support the Risk Management Office in promoting CSR initiatives. Priority initiatives include those aimed at ensuring (1) the promotion of compliance, (2) environment, health, and safety (EHS) management, (3) product safety, (4) export control, and (5) information security management.

**Organization of the CSR Promotion System**



**Environment, Health, and Safety (EHS) Management**

Unitika's Environment Committee and Central Safety and Sanitation Committee are organizations created to oversee environmental management, and health and safety management. The Environment Committee's main functions are examining basic plans on environmentally aware business and verifying their progress, discussing reports of results of environmental audits of production sites and Group companies done by the committee secretary, and discussing other major items related to the environment. The Central Safety and Sanitation Committee discusses measures to prevent work-related accidents and other accidents/disasters, and discusses other major items related to health and safety. These two committees are higher-level organizations that oversee the Environmental Safety Groups of individual Unitika production sites and Group companies. They play an important role in specifying and compiling Group policies when lower-level organizations propose and implement measures reflecting their own unique circumstances.

**Export Control**

In the Unitika Group, export control managers appointed at our business sectors and group companies carry out the management of the daily export operations under the Export Control Committee chaired by a director, based on the Export Control Regulations. The committee administration supervises the situation while sharing information among the managers regarding the management status within the group, as well as trends for the revision of laws and regulations, through the manager conference held regularly. Also, in order to promote the acquirement of accurate information by our employees, we disseminate information using the intranet and conduct training for each position in the group.

**Information Security Management**

Unitika set forth its "Information Security Declaration" establishing a management/operation system centered around the Information Security Committee in order to outline approaches to ensuring the protection and effective use of personal information received from users and of information obtained in the course of doing business. Unitika also strives to prevent accidents in our daily business operations through the enhancement of security devices against threats and risks, including targeted attacks, by raising awareness through in-house education.

**Unitika Information Security Declaration (Preamble Omitted)**

1. We will take steps to ensure the security of information as set forth by our Information Security Policy.
2. We will create an information security management organization, and implement it in a systematic manner.
3. We will educate and train our directors and all employees on our Information Security Policy, working to prevent information security accidents.
4. We will work on improving our information security measures on an ongoing basis.
5. We will comply with all personal information protection laws and all relevant statutes and standards.

'Information Security Policy' refers to the documentation set forth and managed by the information Security Declaration, Basic Policy on Information Security, Standards for Information Security Measures and Information Security Implementation Procedures.



Compliance Promotion

In 1998, Unitika instituted the Unitika Action Charter. Moreover, as a company that contributes to people's lifestyles and the environment while carefully ensuring legal compliance, Unitika distributes a booklet of these standards to all Unitika Group directors and employees, so that they can put them into action. In FY 2011, additions were made to the standards in compliance with international rules prohibiting inhumane acts—forced labor, child labor and human trafficking. We work to ensure that all employees are aware of compliance and that it is firmly established by making it a component of all promotional training and new employee training.



A compliance training session

Unitika Charter of Corporate Behavior

The Unitika Charter of corporate behavior is our basic policy on how best to fulfill our mission as a public-spirited corporation. It applies to all directors and employees of Unitika and Unitika Group companies.

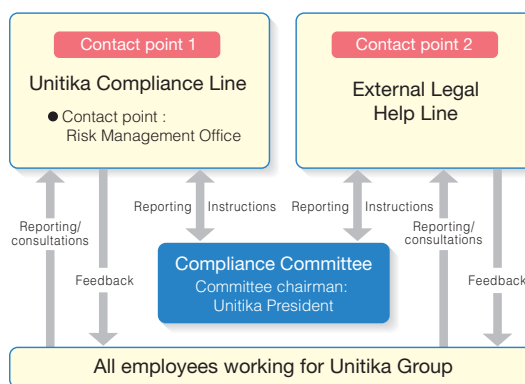
The Unitika Charter of Corporate Behavior is a set of guidelines on how to act for the public good by complying with laws and international standards and guidelines.

1. UNITIKA, by the development and provision of socially beneficial goods and services in a safe and responsible manner, shall strive to earn the confidence of their consumers and customers.
2. UNITIKA shall promote fair, transparent, free competition and sound trade. They shall also ensure that their relationships and contacts with government agencies and political bodies are of a sound and proper nature.
3. UNITIKA shall engage in communication not only with shareholders but also with members of society at large, including active and fair disclosure of corporate information.
4. UNITIKA shall strive to respect diversity, individuality and differences of their employees, to promote safe and comfortable workplaces, and to ensure the mental and physical well-being of their employees.
5. UNITIKA shall respect the culture and customs of other nations and strive to manage their overseas activities in such a way as to promote and contribute to the development of local communities.
6. UNITIKA shall reject all contacts with organizations involved in activities in violation of the law or accepted standards of responsible social behavior.
7. As a "good corporate citizen," UNITIKA shall respect fundamental human rights and actively engage in philanthropic activities, and other activities of social benefit.

Whistleblower Contact Points

We have put into effect a set of 'whistleblower protection' (internal reporting) regulations, and have set up two reporting contact points (one inside, one outside the Company) to enable employees to immediately report any malfeasance or illegal activities they encounter. We thoroughly establish the compliance of the whole group, mainly through the Compliance Committee chaired by the president. The regulations include provisions to protect whistleblower privacy and prohibit prejudicial treatment of them for making a report.

Unitika's Whistleblower Contact Points



Harassment Consultation Services

We have set up a help desk at each office and group company regarding harassment at work, such as sexual harassment, power harassment, harassment in relation to pregnancy, childbirth, parenting and nursing care including maternity harassment, in order to detect and resolve harassment at an early stage. The Guidelines Regarding the Prevention of Human Rights Violation such as Harassment at Unitika Group was established in 2012, and was revised in December 2016. As we broadly strive toward the prevention of harassment and the establishment of a workplace where all our employees can work comfortably, we have added the statements that sexual harassment cannot be allowed regardless of the victim's sexual orientation and gender identity, and that it is considered as sexual harassment if there is any nonconsensual sexual statements or action, even if it is between people of the same sex.



A harassment training session

Unitika Purchasing Policy

● Purchasing Policy

Unitika purchasing departments will engage in transparent, fair procurement practices that meet personal and community standards. They will uphold the Company's duty to engage in responsible procurement activities, placing emphasis on CSR activities.

■ 1. Legal Compliance

When executing purchasing activities, the Company will comply with laws and community standards, engaging in transparent, fair procurement activities and aiming to be a good corporate citizen.

■ 2. Harmony With Environment

When procuring products or services, the Company will value environmental awareness and the preservation of safety, endeavoring to purchase products and raw materials of low environmental impact.

■ 3. Respect for Human Rights; Improving Working Environments

When engaging in purchasing activities, the Company will respect human rights and ensure that all forms of prejudice are eliminated when work is executed. The Company will make efforts to ensure health and safety, and to improve work environments.

■ 4. Partners (CSR Aspects)

The Company will aim to create better partnerships, and ask partners to:

- A. Comply with legal and community standards
- B. Respect human rights; value efforts to improve working environments
- C. Work on activities to preserve the environment and to ensure safety
- D. Endeavor to ensure appropriate quality/prices and reliably on-time delivery, and to maintain and improve products and services

Unitika TOPICS .....

Unitika Textiles Ltd. participated in the fire extinguishing skills training contest!

2 teams (2 people each, male and female) from the Tokiwa Mill of Unitika Textiles Ltd. participated in the annual Fire Extinguishing Skills Training Contest organized by the Soja City Fire Prevention Association and the Soja City Fire Fighting Headquarters on October 6, 2013. 14 teams from various offices located in Soja City participated in each male and female section for the 19th contest, and competed with each other regarding the basic handling of fire extinguishers and handling techniques. Unfortunately our Tokiwa Mill teams did not win, however it did contribute to the improvement of fire prevention awareness, not only among the participants of the contest but also at the whole mill, thanks to the technical instructions provided by the former participants and local fire corps volunteers at the mill.

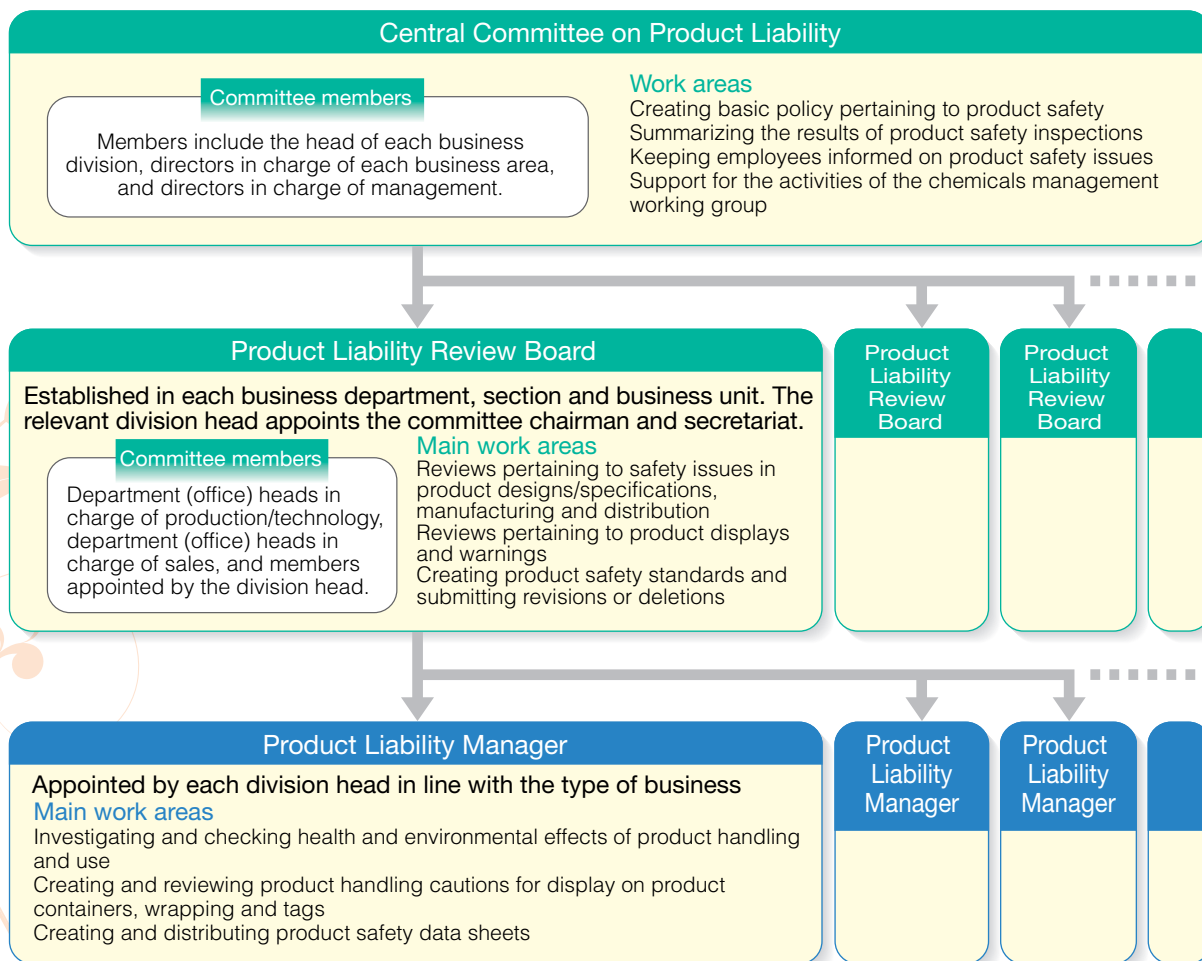


**Relationships with Clients**

Through our product liability and quality assurance efforts, Unitika strives constantly to improve product safety and quality of our products maintaining customer satisfaction as our first priority.

**Ensuring Product Safety**

Unitika has established product safety management regulations designed to ensure that we always offer safe products to our customers. Unitika's product safety management regulations contain detailed provisions on areas such as basic policy, responsibility areas, implementation systems, and bylaws on the implementation and application of manual procedures. Unitika and Unitika Group companies work to ensure that product manufacturing and sales are carried out safely, in compliance with these regulations. The chart below details promotional system, headed by the Central Committee on Product Liability, for ensuring product safety.



**Product Safety Record for Fiscal 2016**

No product liability-related incidences occurred.

\*Information on the claims which may bring about an accident is shared by the Central Committee on Product Liability and such information is used to prevent from repeated claims.

**Quality Assurance Activities**

In order to satisfy customer's demands on our products, the Unitika Group is pursuing quality management system certification. We are constantly improving our quality assurance activities based on ISO9001 standards for quality management systems.

Relationships with Shareholders & Investors

Seeking to pursue a stakeholder-oriented business style, the Unitika Group strives to create several opportunities to enable timely information disclosure to shareholders and potential investors. The Unitika Group implements activities to ensure these opportunities run smoothly, and works to augment dialogs with shareholders and potential investors.

IR Activities

■ Ordinary General Stockholder Meetings

Held every year in late June. Outlines the latest business conditions and gives shareholders an opportunity to dialog, seeking to provide a better understanding of the Company’s current management environment and policies.

■ Announcements of Financial Statements & Explanatory Sessions

Unitika conducts a variety of financial data disclosure activities, including twice-yearly second quarter and full financial year accounting statements for the press, both of which are followed a week or so later by explanatory session geared toward institutional investors and analysts.

■ Institutional Investor Visits

Unitika representatives make visits to institutional investors and analysts in order to provide more specific information as needed.

■ Publications

- Financial Flashes (4 times annually, in May, August, November, and February)
- Stockholder Reports (2 times annually, at second quarter and full year closing)
- Corporate Guides

■ Website Disclosures

Unitika’s website contains the Investor Relations page for shareholders and potential investors that discloses IR information and press releases on products and services. There is also an archive of past short-form financial statements, IR briefings materials and securities reports.

Share Status (as of 30 June, 2017)

■ Total Number of Shares Issued :

Common shares	577,523,433
Class A shares	21,740
Class B shares	5,759

■ Number of Shareholders :

Common shares	44,921
Class A shares	1
Class B shares	2

\*The number of shareholders is calculated from the shareholders list from March 31, 2017.

Unitika TOPICS

Terramac received the 6th Biomass Products Promotion Contribution Award

This award is the result of our spinning stretching technology for synthetic fiber to develop a 3D printer filament that is virtually clog-free and has consistent extrusion while featuring a perfect cross-sectional circle shape and flexibility thanks to the filament’s robustness.

Unitika will further enhance the polylactic acid processing technology we have cultivated, and strive towards the promotion of biomass materials by undertaking active initiatives in new, fast-growing technology fields such as 3D printers.



## Contributing to the Community and the Environment

The Unitika Group is seeking to protect the environment, preserve biodiversity and ensure solid educational opportunities for children by disseminating information on a wide variety of topics ranging from local beautification drives and disaster readiness programs, to woodland conservation and educational aid in developing countries.

### Community-focused Initiatives

#### ECO Kyoto

Eco Kyoto 21 is a system run by Kyoto prefecture to certify and register production sites that play a leading role in environmental preservation or local recycling efforts. Unitika's Uji Plant is participating in the system, and in 2004, was certified and registered in the system's Ecostyle category for production sites and organizations engaging in highly original environmental awareness activities.



#### Participation in Local Beautification Activities

As part of their efforts to give back to the community, Unitika production sites actively take part in environmental beautification drives to clean up their surroundings.

At the Okazaki Plant, about 80 volunteers clean the area around the plant on the second Thursday of every month. 100 employees participated in the River and Ocean Cleaning Project and cleaned up the Yahagi River with local volunteers on Sunday, October 23, 2016.

At the Uji Plant, cleaning of the surrounding area was conducted twice a year through the project called the Clean Uji Initiative. In fiscal 2016, the clean-up was carried out three times (Thursday, July 7, Thursday, September 8, and Friday, March 3) with the participation of 729 employees in total.

In addition to our regular beautification activities, the employees at the Sakoshi Plant participated in the cleaning of the surrounding area, as well as the cleaning of the central city area, as initiated by the members of the chamber of commerce as a part of the Ako Clean-up Project on Tuesday, May 30, 2017 (Zero Waste Day).

At the Tarui Plant, the cleaning of the Aikawa Waterside Park in the surrounding area was carried out on Saturday, May 14, 2016, and the cleaning of the front area of the plant was carried out after the training seminar held by Unitika Union on Wednesday, March 22, 2017.

At Unitika Textiles Ltd., strawberry picking event was organized by the company and the union on Sunday, May 21, 2017. Participants walked to the venue on foot while picking up garbage. 25 people participated including the employees' families. They collected two bags of garbage on the way to the venue, which took them about an hour. We will continue to implement cleaning activities for local communities.



Volunteers from the Okazaki Plant taking part in a local cleanup drive



The Uji Plant's cleanup drive



The Sakoshi Plant's cleanup drive



The Tarui Plant's cleanup efforts in Aikawa Waterside Park /  
Cleaning activities at the front area of the plant



Garbage collecting activities at Unitika Textiles Ltd.

Preserving the Environment and Biodiversity

Participation in Biodiversity Declaration

Unitika has endorsed the Declaration of Biodiversity released by KEIDANREN (Japan Business Federation) in 2009, and is partnering with it in promoting the declaration. The declaration contains seven principles covering areas such as harmonizing business activities with natural cycles, and promoting business oriented to these cycles. Unitika's business activities are designed with an awareness of biodiversity.

Unitika no Mori ('Unitika Wood') Project

Unitika's labor union, Unitika Union, established a volunteer fund in 1992 to develop a variety of domestic and international support activities. As a project that commemorates its 30th anniversary in 2003, Unitika Union started the Midori no Plan ('Green Plan') with the purpose of social contribution and environmental protection in Japan.

For the Midori no Plan, we planted Japanese chestnut oaks, konara oaks and Japanese cypresses in a 2 hectare area of mountain forest that has been named Unitika no Mori, located in Hidakagawa-cho, Wakayama Prefecture. Several times a year, Unitika employees visit the site to maintain the forest by clearing underbrush and pruning branches. These activities have been officially recognized by Wakayama Prefecture as 'an effort that contributes to CO<sub>2</sub> absorption through forestation'. It is expected to result in about 800 metric tons of carbon dioxide absorption over the next 100 years.

In September 2016, 27 of our employees joined the Midori no Plan training program and learned about the importance of environmental preservation through being surrounded by nature. More than 420 people participated in the project in total.



Unitika TOPICS

Receiving an award for being an excellent office for the recruitment of people with disabilities

Unitika was awarded as an excellent office for the recruitment of people with disabilities at the Recruitment Fair for Elderly People and People with Disabilities 2016 held by Osaka Institute Employment Development Association on October 13, 2016.

This is due to our achievement of recording the all-time highest recruitment rate of 2.72%, which significantly exceeds the rate regulated by the law (2.0%), at all companies of Unitika Ltd. in fiscal 2016. It was also due to Unitika maintaining a higher rate than the legal rate for several years.

We have been continued to maintain a high rate up to now, as the recruitment rate was 2.46% as of March 31, 2017. Unitika will keep making efforts in regard to the recruitment of people with disabilities.



**Disaster Prevention & Readiness Efforts**

To prepare for major disasters like the earthquake and tsunami that devastated Tohoku in March 2011, disaster readiness measures are crucial both to fulfill the basic mission of protecting the lives of employees as well as to uphold the responsibility to stakeholders of continuing business activities. In compliance with Japan's Act for Promotion of Renovation for Earthquake-Resistant Structures, the Unitika Group inspects structures and facilities of production sites. We also work to create self-supporting emergency energy supply systems by providing for home generation facilities and working on production site energy conversion.

**Disaster Readiness Training**

The Unitika Group works on creating systems to prevent production accidents and accidents damaging surrounding areas, while actively promoting training to prepare for accidents and natural disasters. To make internal standards for managing safety at production facilities, Unitika has established a set of "pre-evaluation policies" on safety sanitation and environmental effects at new facilities. As a disaster readiness measure when creating or renovating facilities, a total of two rigorous inspections (during design and upon completion) are carried out in compliance with these standards.

At the Okazaki Plant, 400 employees participated in a large-scale integrated emergency drill on the "Disaster Drill Day at Plants", Friday, November 18, 2016. In addition to evacuation drills in preparation for an earthquake, drills in preparation for a variety of troubles including the outflow of chemicals, fire breakouts, confinement and the cardiopulmonary arrest of employees were carried out through cooperation between the headquarters for disaster control and the locations.



Integrated emergency drill (Okazaki Plant)



Emergency drill (Uji Plant)



Emergency evacuation drill/  
Earthquake experience (Tarui Plant)



Hydrant water-discharge drill  
(Tarui Plant)



Emergency evacuation drills (Unitika Textiles)



Other Unitika production sites also carry out training in line with fire prevention campaigns held in spring and fall. At the Uji Plant, individual departments train in areas such as reporting, communicating, seeking refuge, aiding victims and extinguishing small fires. A total of 749 employees took part in FY 2016. At Tarui Plant on Monday, November 7, 2016, an emergency evacuation drill was conducted for an earthquake for 139 employees and 39 employees in total experienced the reenacted past earthquake on the earthquake experience vehicle. In addition, hydrant water discharge training was conducted on Tuesday, April 25, 2017. Unitika Textiles Ltd. conducted an evacuation drill at each department of Tokiwa Mill in June 2017. Considering that a magnitude 3 earthquake was observed near Tokiwa Mill when the central Tottori earthquake occurred in October 2016, the drill was conducted based on the assumption of a large earthquake occurring, with our employees evacuating to the initial evacuation area after securing their safety by protecting themselves under the desks etc. After the roll call, the person in charge of each department gave a talk on the evacuation route, the storage of evacuation supplies and how to deal with emergencies at home and so on. We conducted an emergency evacuation drill in preparation for an earthquake on Tuesday, October 25, 2016 at Osaka headquarters.

**Preparation for large-scale disasters**

Unitika established the Protocols for Returning Home which encourages our employees to stay in their worksites in case of public transportation such as trains gets interrupted due to large-scale disasters, in order to prevent them from having problems during their return home, or to prevent them from obstructing the operations of police officers and fire fighters. We are also carrying out initiatives such as storing disaster equipment, supplies, drinking water and preserved food. We also established a system that allows us to handle requests for support from the people of local communities and local governments.

## Concern for Our Employees

Unitika's personnel system is designed to encourage employee self-actualization. We provide equal employment and work opportunities, and make every effort to create accommodating workplace environments.

### Personnel System

Unitika's personnel system is designed to encourage employees to develop their careers and improve their abilities. It offers several different educational programs to enable employees to work on their personal growth with a high degree of motivation and an ambitious mindset. These programs are offered systematically and continuously to enable organizational growth and boost corporate competitiveness.

#### ● Personnel Rotation System

Unitika's personnel rotation system is designed to enable systematic education of the human resources needed for the ongoing running of organizations in accordance with the job level of each individual. It is designed to enable the career development of each employee, to create synergy among organizations and to lead to better business opportunities and corporate performance. Employees self-report the positions they want to be posted to, which are considered along with the needs of the Company, providing the best possible understanding of expected employee roles and ability development goals, and enabling more effective operations.

#### ● Evaluation System

Unitika's evaluation system is designed to provide a more accurate understanding of the roles employees expect to occupy, and to provide more impartial evaluations of the individuals producing the results needed to fill those roles. Employees are given yearly performance evaluations that rate them based on their competency, ability, role improvement, attainment of results, and job execution processes. They are also given twice-yearly performance evaluations in accordance with the Company's target management system. These evaluations form the core of an evaluation system that helps ability development and education of each employee, is linked to pay raises, promotions and bonuses, and enables reliable feedback through discussions of evaluation results with superiors.

### Human Resources Education

Unitika provides our education system with the philosophy that raising the skills standards of all our employees leads to the strengthening of the foundations of the organization. We consider OJT based on the career paths of employees as the core of human resource development, and have established a system that more efficiently provides follow-ups for early-career employees, as well as education and support for managers. For the OFF-JT, we have enriched the programs for the improvement of management skills through position-based training, while increasing the "function-based education" options such as a sales group, a technology development group, and a manufacturing group. Unitika will continuously implement the global human resource development program that contributes to the promotion of our overseas businesses according to the plan. We will also foster a global mindset, intercultural communication skills and language skills in our employees.

#### ○ Education/Training System

- Ability training period (first 3 years at Unitika) and follow-up training, on-the-job training for reinforcement
- Level-specific education (such as for high-level managers, new managers, supervisors and other newly promoted employees)
- Selective education (such as for core leaders and young leaders)
- Function-specific education (for sales positions, technology development positions and manufacturing positions)
- Overseas study system for technical positions
- Self-improvement support (such as help gaining qualifications and correspondence courses)

#### ○ Training Programs for Global Human Resources

- Placement in overseas-related positions or overseas bases through personnel rotation
- Overseas trainee system
- Overseas business trip accompaniment system
- Assistance for taking foreign language lessons
- Overseas-related job training (global courses, Global business skills training, global management training)
- TOEIC testing recommendations, other
- Training for supervisors at overseas offices

### Employee Mental Health

Unitika actively pursues measures to ensure the mental well-being of employees based on the Guidelines on the Maintenance and Enhancement of Employee Mental Health issued by the Ministry of Health, Labour and Welfare. All Unitika employees undergo mental health training when they are promoted to a management position. We encourage managers to be aware of their managerial role and to take care of their own mental health as well as the mental health of employees in their charge. Unitika introduced return-to-work support guidelines for employees who have taken extended leave due to mental illness. We manage and promote employee health by supporting all employees at every stage from preventing illness to facilitating their return to work. We will conduct stress check examinations to implement stress relief measures for those who score high in stress levels, as the first preventive measures for mental health care.



Equal Opportunity

Promotion of women's participation

Unitika has been promoting the active participation of women within the group by firmly maintaining a corporate culture that conducts recruitment, development, allocation and promotion of human resources and the appointment of skillful human resources, regardless of gender.

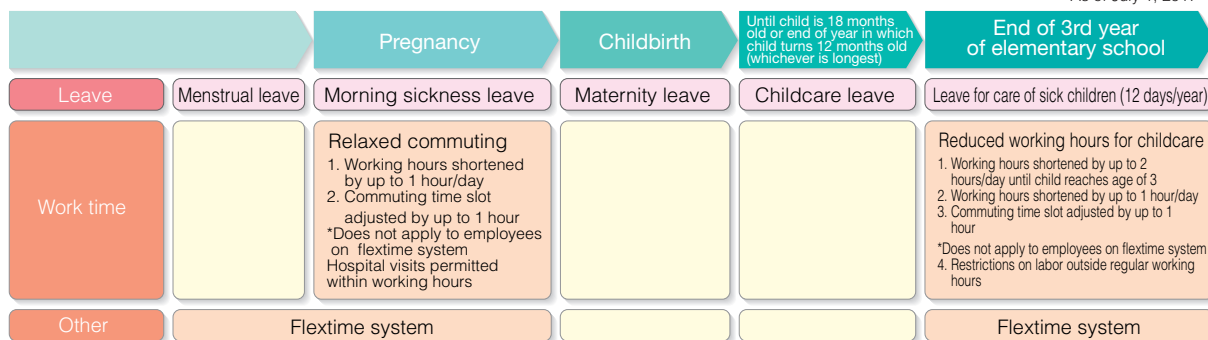
Reemployment System

Unitika has a senior employee system that enables employees to continue in the same job after reaching the age of 60. We welcome employees who want to continue working.

In addition, we are planning to enact systems and to improve existing ones, with the connection between pensions and employment always kept in mind.

Support System for Work and Childcare

As of July 1, 2017



Achieving a Work/Life Balance

In the interest of achieving an ideal balance between work and home life, and also to address Japan's aging society issues, Unitika fosters a corporate environment that allows employees to take leave for both child-raising and elder care, and in fact, Unitika offers leave durations for these, and also for care for sick children, that are longer than those stipulated by law. Also, based on Japan's "Next-Generation Child-Raising Support Measures Promotion Law," the company is also involved in promoting male participation in child-care, with child-care leave available to both male and female employees.

	Employees taking childcare leave	Employees taking leave to care for elderly relatives
2012	14(4)	1
2013	26(4)	0
2014	24(4)	1
2015	15(2)	3
2016	19(4)	0

\*Numbers in parentheses indicate number of male employees who took childcare leave.

Employing People with Disabilities

Unitika not only employs enough personnel to meet the legally mandated percentage of employees with disabilities (2.0%) but also cooperates with local employment agencies and welfare facilities in activities to provide self-reliance support to people with disabilities.

Percentage of Unitika employees with disabilities  
2.46% (as of the end of March 2017)

Promoting Awareness of Human Rights

Raising Human Rights Awareness

The Unitika Charter of Corporate Behavior that is distributed to our employees upholds the respect for human rights. We are working towards human rights awareness by setting up a human rights awareness promotion organization and conducting in-house human rights training for our employees including the CEO, executives and the CEOs of our affiliates. As a member of the Corporate Report Association of Human Rights Issue, Unitika works on human rights issues in a variety of ways, such as by gathering human rights educational information. Based on our understanding that any kinds of harassment is considered a violation of human rights, we have set up a support desk for sexual harassment, maternity harassment, and power harassment at each of our offices and affiliates to raise the level of understanding and awareness of our employees.

Elimination of forced labor and child labor

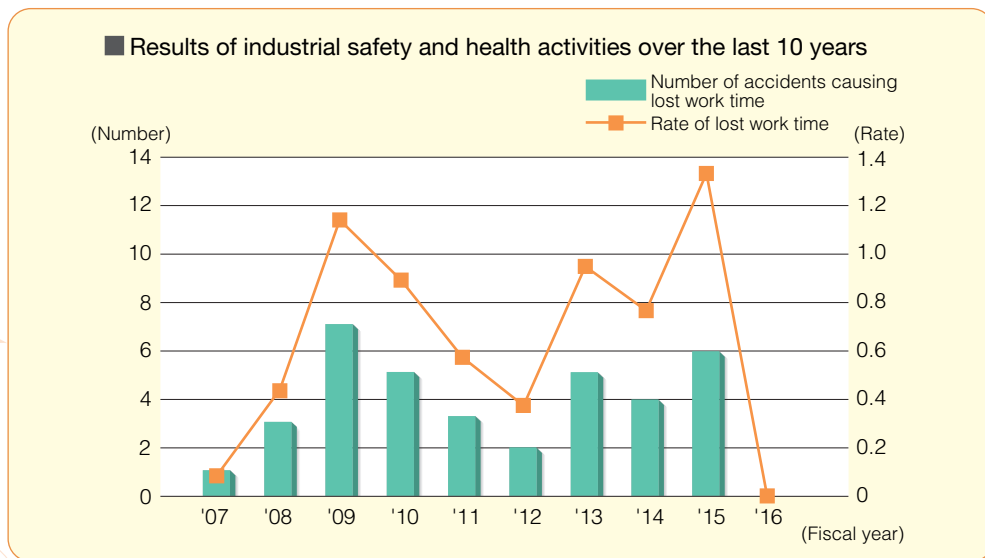
Unitika Group companies and overseas affiliates have made declarations of their refusal to take part in any form of forced labor or child labor in violation of international agreements such as the International Covenants on Human Rights or the Convention on the Rights of the Child. The Unitika Action Standards document the Company's refusal to permit these practices or human trafficking for the purpose of such practices.

Fair Recruitment Practices

Unitika has created the Unitika Employment Interview Manual based on the spirit of the employment selection guidelines issued by The Ministry of Health, Labour, and Welfare. We promote fair recruitment practices by distributing the manual at meetings and training seminars for interviewers and those involved in the selection process, and ensuring that all concerned are familiar with its contents.

Safety & Health Activities

The Unitika Group engages in health and safety management activities designed to completely eliminate accidents resulting in lost work time. They include original initiatives created by individual production sites and Group companies under the direction of the Unitika Central Safety and Sanitation Committee. The Committee specifies a new set of key policies every three years, and creates health and safety guidelines for use in promoting activities. Initiatives will be implemented under the new 17th set of guidelines from fiscal 2017. Production sites and Group companies take an active approach to implementing activities, using the guidelines to create annual activity plans at the start of every fiscal year. The culmination of these activities is the Unitika Health and Safety Conference, a once-yearly opportunity for Unitika employees to gather and gain inspiration by sharing activity reports, recognition for outstanding achievements, and speeches.



\*We achieved the result of zero-accidents in fiscal 2016.

Asbestos Removal

In 2005, the Unitika Group established the Asbestos Action Committee, a Groupwide body that promotes asbestos-related measures. Exposed beams and posts containing friable asbestos have already been removed, sealed off or enclosed. Friable and non-friable asbestos that has been sealed off or enclosed is being treated as needed, sometimes in conjunction with periodic repair work.

To verify worker health, we have provided asbestos-related health checkups to all current and former employees requesting it who have handled asbestos in the past. As of March 2013, our past and current employees included Seven certified industrial accident victims (of whom six have died) and three victims certified under the Law Concerning the Relief of Health Damage Due to Asbestos (of whom three have died). No health problems have been reported from residents of areas surrounding production sites or Group companies.

Number of certified industrial accident victims: 7 (6)\*  
 Number of victims certified under the Law Concerning the Relief of Health Damage Due to Asbestos: 3 (3)\*

\*Number in parentheses is number of deaths.

**I Basic Environmental Policy**

Unitika named 1993 an Environmental first year, when we enacted the Unitika Global Environment Charter, consisting of our pledge, basic philosophy and action guidelines. Since then, we have complied with this Charter to ensure that our corporate management methods are environmentally aware, working on a range of environmental activities.

**● Unitika Global Environment Charter**

The growth and development of mankind is rapidly altering our planet's air, water and soil, threatening both the global biosphere and our own future, since both must depend on a finite ecosystem. As a corporation with more than a century of business activities contributing to the public good, we are highly aware of the demanding conditions now facing the global environment. The Charter is the declaration of our intention to focus more attention on protecting and helping the environment, making appropriate environmental action the core of our business activities.

**● Basic Philosophy**

Better living through technology, driven by corporate activities that help humans and nature coexist.

**● Action Guidelines**

<b>1</b> Continual awareness of the global environment	The Unitika Group always considers the effects of our corporate activities on the global environment, following a rigorous set of management procedures during product manufacture to prevent harm to it.
<b>2</b> Contributing through technology development	We aggressively research and develop technologies to protect and help the global environment.
<b>3</b> Using resources and energy efficiently	We promote efficient use of resources and energy, and recycle limited resources.
<b>4</b> Carrying out PR and educational activities	We organize a large number of PR activities that provide information on protecting and helping the global environment, and promote a wide range of educational events.
<b>5</b> Drawing on the complete range of Unitika Group competencies	Following the mandates of the Charter, we draw on our complete range of competencies to protect and help the global environment.

Unitika

**TOPICS**

**The Uji Plant received an award at the Uji City Fire Fighting Training Contest.**

The Unitika Ltd. Uji Plant participates in the Uji City Fire Fighting Training Contest organized by the Uji City Fire Prevention Safety Association every year. Two teams participated in the 41st contest, one in the female fire extinguisher operation section and the other for male indoor fire hydrant operation. The female team won the Uji City Head of the Fire Department Award.



## History of Environmental Preservation Activities

### Unitika's Environmental Preservation Activity History

Unitika's work on environmental management has continued uninterrupted for over 40 years, and will continue into the future.

Pollution first became a major issue in Japan in 1973. That year, Unitika created the Environmental Preservation Regulations, making a clear distinction between environmental measures and outward-directed production activities, to enable compliance with regulatory and standards values.

In 1991, we created a new companywide organization called the Environmental Preservation Committee, followed in 1993 by the Unitika Global Environment Charter. That year we began yearly environmental auditing, establishing the basic direction for our environmentally-aware management style that has continued to this day. In 1998, we created the Unitika Charter of Corporate Behavior, a document that sets forth the basic action policy needed to fulfill our Unitika Group mission as a public-spirited corporation. Its first article sets forth our responsibility for environmental and safety awareness.

The Unitika Action Standards created and implemented in April 2001 expanded on the Unitika Action Charter by setting forth specific action standards for Unitika organizations and employees to comply with in the performance of their routine business activities. The Standard of Corporate Behavior represent a clear step toward corporate activities grounded in a mindset of corporate social responsibility (CSR). They cover areas such as the environment, safety, compliance, and coexistence with the public good and stakeholders.

September 1973	Created and implemented Environmental Preservation Regulations.
October 1991	Revised Environmental Preservation Regulations, established Environmental Preservation Committee.
April 1993	Created and implemented Global Environmental Charter.
May 1993	Environmental Preservation Regulations were reborn as Environmental Regulations. Established Environmental Committee, organization which meets annually.
May 1994	Started environmental audits (once per year). (Voluntary audits by each production site and internal audits by headquarters staff.)
July 1996	Created targets for first Medium-Term Environmental Plan (FY 1997 to 1999).
September 1996	Started publishing Kankyo, our in-house newsletter on environmental issues.
October 1997	Started activities aimed at becoming ISO 14001-certified at our major production sites.
January 1998	Created and implemented Unitika Action Charter.
January 1999	Unitika Chemical was awarded ISO 14001 certification (first in Group).
October 2000	Created targets for second Medium-Term Environmental Plan (FY 2000 to 2002).
April 2001	Created Unitika Action Standards.
October 2002	Published Unitika Environmental Report.
October 2002	Created targets for third Medium-Term Environmental Plan (FY 2003 to 2005).
October 2005	Created targets for fourth Medium-Term Environmental Plan (FY 2006 to 2008).
October 2008	Created targets for fifth Medium-Term Environmental Plan (FY 2009 to 2011).
October 2011	Created targets for sixth Medium-Term Environmental Plan (FY 2012 to 2014).
January 2015	Created targets for seventh Medium-Term Environmental Plan (FY 2015 to 2017).

### ISO 14001-Certified Unitika Organizations

Unitika is working on becoming certified under ISO 14001-the international standard for environmentally-aware corporate activities. Since 1999, five production sites (Uji, Okazaki, Sakoshi, Tarui and Tokiwa) and 11 major Group companies have become certified. We have started activities to help our affiliates obtain ISO 14001, and have been conducting environmental audits of each company.

April 1999	Ad'all Co., Ltd.
November 1999	Unitika Sakoshi Plant
January 2001	Unitika Textiles Ltd., Tokiwa Mill
March 2001	Unitika Uji Plant
March 2001	Unitika Uji Plastic Plant
March 2001	Unitika Central R&D Laboratories
March 2001	Unitika Glass Fiber Co., Ltd., Kyoto Plant
October 2001	Unitika Okazaki Plant
October 2001	Unitika Plant Engineering Co., Ltd., Chubu Office, 2nd Business Division
October 2001	Nippon Ester Co., Ltd., Okazaki Plant
December 2001	Unitika Tarui Plant
December 2001	Unitika Plant Engineering Co., Ltd., Tarui Group
December 2003	Unitika Glass Fiber Co., Ltd., Tarui Plant
September 2004	Terabo Co., Ltd.
June 2008	Union Co., Ltd.

**Medium-Term Environmental Plan**

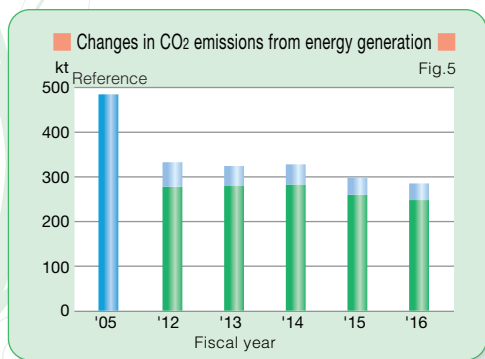
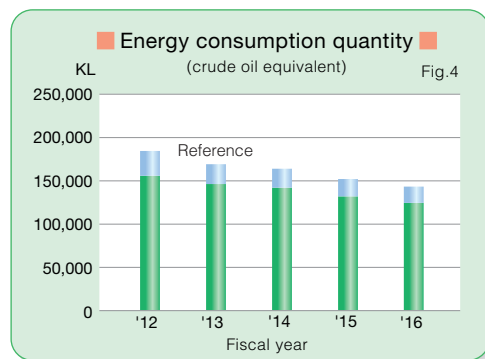
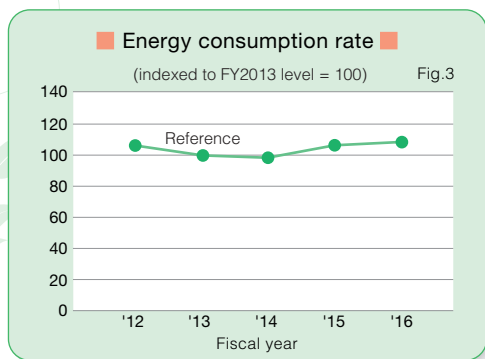
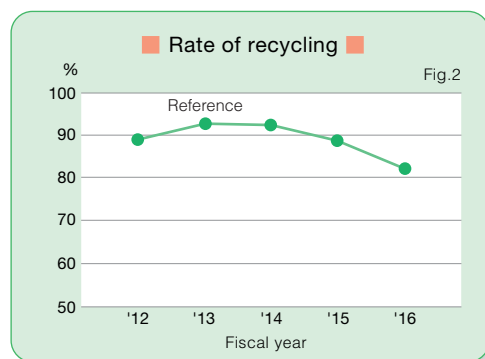
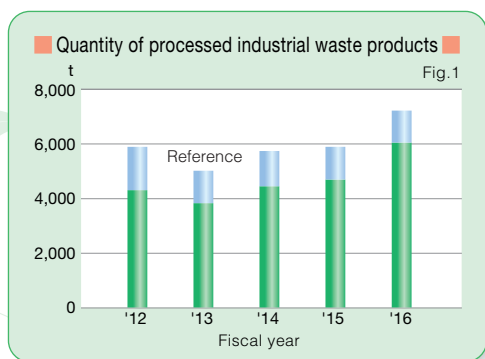
The Unitika Group established and promotes the 7th Medium-Term Environmental Plan, setting fiscal 2013 as the base year and fiscal 2017 as the last target year. In 2016, which was an interim year, we reduced the amount of energy use due to the active energy saving initiatives at our offices. However, as production also decreased our energy consumption rate slightly worsened. Due to troubles that arose from natural disasters, the recycle rate decreased while the amount of waste disposed outside the factories increased.

As a result, 3 environmental goals out of 5 have not been attained. We will promote the initiatives in order to attain all the goals in fiscal 2017, the last target year.

**Seventh Medium-Term Environmental Plan (FY 2015-FY 2017)**

Issues	Targets	Baseline	Target value	Fiscal 2016 Performance	Results	Fig. No.
1 Reduction of the amount of industrial waste disposed outside the factories	6% reduction relative to FY 2013 level	4,989t	4,690t	7,187t	Not achieved	(1)
2 Improvement of recycling rate	1point improvement relative to FY 2013 level	92.8%	93.8%	82.1%	Not achieved	(2)
3 Improvement of energy consumption rate	4% improvement relative to FY 2013 level (1% improvement from the previous year)	0.642L/kg	0.616L/kg	0.696L/kg	Not achieved	(3)
4 Reduction of energy consumption	6% reduction relative to FY 2013 level	169,000KL	159,000KL	144,000KL	Achieved	(4)
5 Reduction of CO <sub>2</sub> emissions from energy generation	40% reduction relative to FY 2005 level	486kt/year	292kt/year	285kt/year	Achieved	(5)

Note\*: Scope of seventh Medium-Term Environmental Plan: Domestic plants, On-Site group companies, and external Domestic group companies

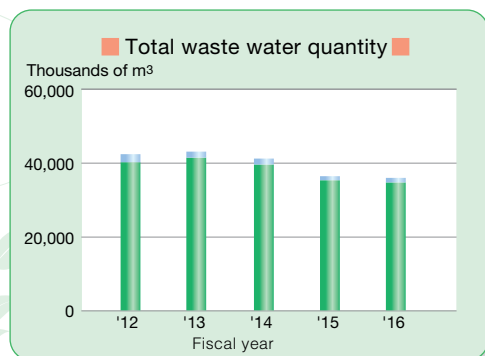
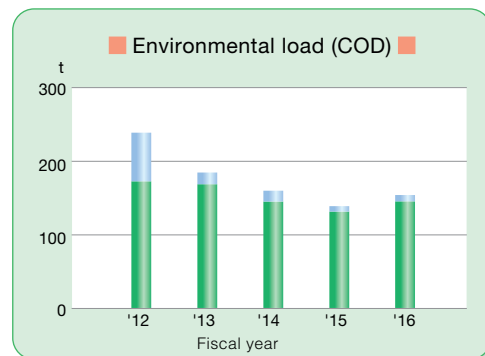
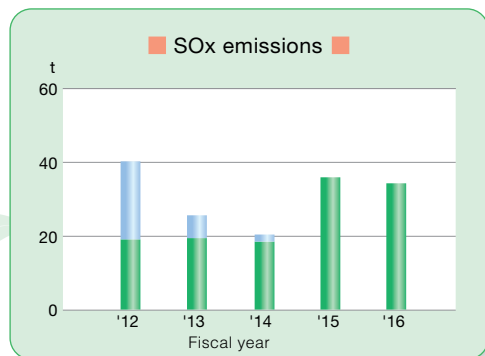
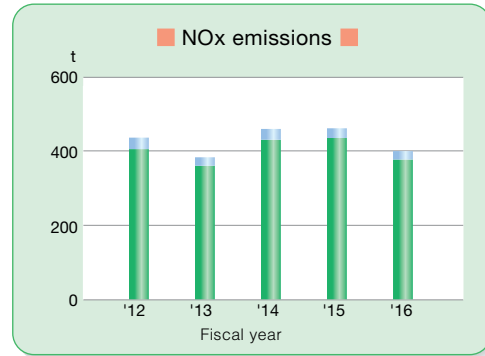
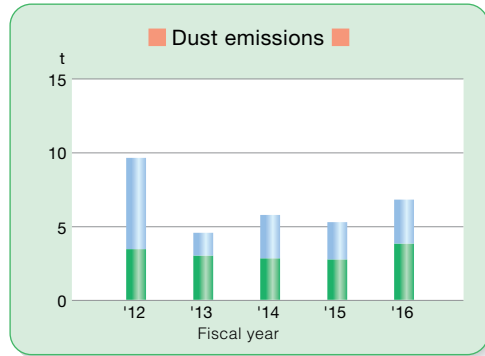


■ Unitika Domestic Plants & On-Site Group Companies  
■ External Domestic Group Companies

Note: Energy consumption rate = Energy consumption(oil equivalent)(ML) / output(Thousands of tons)

**Reducing Air and Water Pollution**

Domestic plants are pursuing measures such as switching from fuel oil to natural gas and the abolition of diesel power generation to reduce emissions of dust, nitrogen oxides (NOx), sulfur oxides (SOx), and carbon dioxide (CO<sub>2</sub>). Unitika also works to reduce water pollution through the appropriate management of wastewater treatment facilities.



■ Unitika Domestic Plants & On-Site Group Companies  
 ■ External Domestic Group Companies  
 Note: NOx=nitrogen oxides, Sox=sulfur oxides, COD=chemical oxygen demand

**Promotion of Waste Disposal of Devices that Contain PCB**

It is stipulated by the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes to complete the disposal of devices that contain PCB by the end of March 2027. Unitika Group has strategically updated the devices containing PCB which are owned by our offices and affiliates, and also promotes their early disposal. We also conduct investigations to check if there are any devices left inside the factories that may contain PCB.

## Handling of Chemical Substances

### Control of PRTR System-Regulated Substances

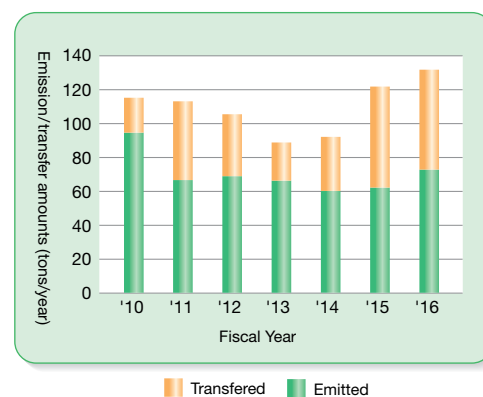
The Unitika Group works to monitor and reduce the use of chemical substances thought to be hazardous to human health as regulated by the Pollutant Release and Transfer Register (PRTR) system. As the production of vinylon stopped, the emission of boron compounds decreased in fiscal 2016. On the other hand, the amount of dichloromethane emissions significantly increased, which raised the total amount of emissions due to the activeness of the polymer business.

Emission and Transfer Amounts for PRTR System-Regulated Substances in Fiscal 2016

Substance	Emitted			Transferred
	Atmosphere	Water	Total	Total
Acetaldehyde	3.8	1.0	4.8	—
Bisphenol A	—	—	—	4.9
ε-Caprolactam	14.8	—	14.8	—
1,4-dioxane	—	0.1	—	0.4
HCFC-225	1.2	—	1.2	—
Dichloromethane(Methylene chloride)	45.9	—	45.9	35.9
Dimethylformamide	0.9	—	0.9	2.4
Terephthalic acid	—	—	—	3.5
Toluene	3.7	—	3.7	8.1
Polyoxyethylene alkyl ether	—	0.2	0.2	0.3
N-hexane	0.5	—	0.5	0.2
Hydroterphenyls	—	—	—	0.6
Water soluble salt of peroxydisulfuric acid	—	0.3	0.3	0.5
Other	0.1	0.2	0.6	2.1
<b>Unitika Domestic Plants &amp; On-Site Group Companies Total</b>	<b>65.2</b>	<b>1.3</b>	<b>66.5</b>	<b>45.9</b>
<b>Unitika External Domestic Group Companies Total</b>	<b>5.7</b>	<b>0.5</b>	<b>6.4</b>	<b>13.0</b>

(annual tons)

Emission/Transfer Amounts of Substances Subject to the PRTR System



### Promotion of the management of chemicals at domestic and overseas locations

Unitika Group promotes initiatives that correspond to the Act on the Evaluation of Chemical Substances and the Regulation of their Manufacture, the European regulations for the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and other chemical management systems in Asian countries. The Chemicals Management Working Group works to share information between relevant personnel about the revision of acts in other countries and current trends in related industries, as well as to disseminate this information within the group.

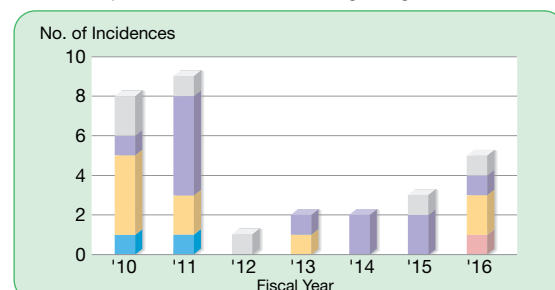
## Logistics

Unitika undertakes a variety of efforts to reduce the environmental burden associated with the delivery and emission of raw materials, products, waste, and other materials. These efforts include the implementation of modal shifts and streamlining of delivery systems. In fiscal 2016, as a specified consigner we reported 68,000 tons of freight and 24,200 tons of CO<sub>2</sub> emissions to the government. Unitika will strive for eco-friendly distribution within the whole group by expanding the use of trains, promoting idle stops and the use of ecological tires, and decreasing the frequency of deliveries through the use of larger vehicles and so on.

## Environmental Complaints

The Unitika Group always tries to conduct our business activities with consideration for the lives of people in local communities. However, we caused problems due to noise and odor generated from our production sites in fiscal 2016. In reaction to the complaints we received, we have been putting efforts into preventing any recurrence by immediately examining the causes of the problems and communicating with the people in the community. We will keep improving in order to contribute towards a comfortable living environment for people in the community.

Complaints from Surrounding Neighborhoods



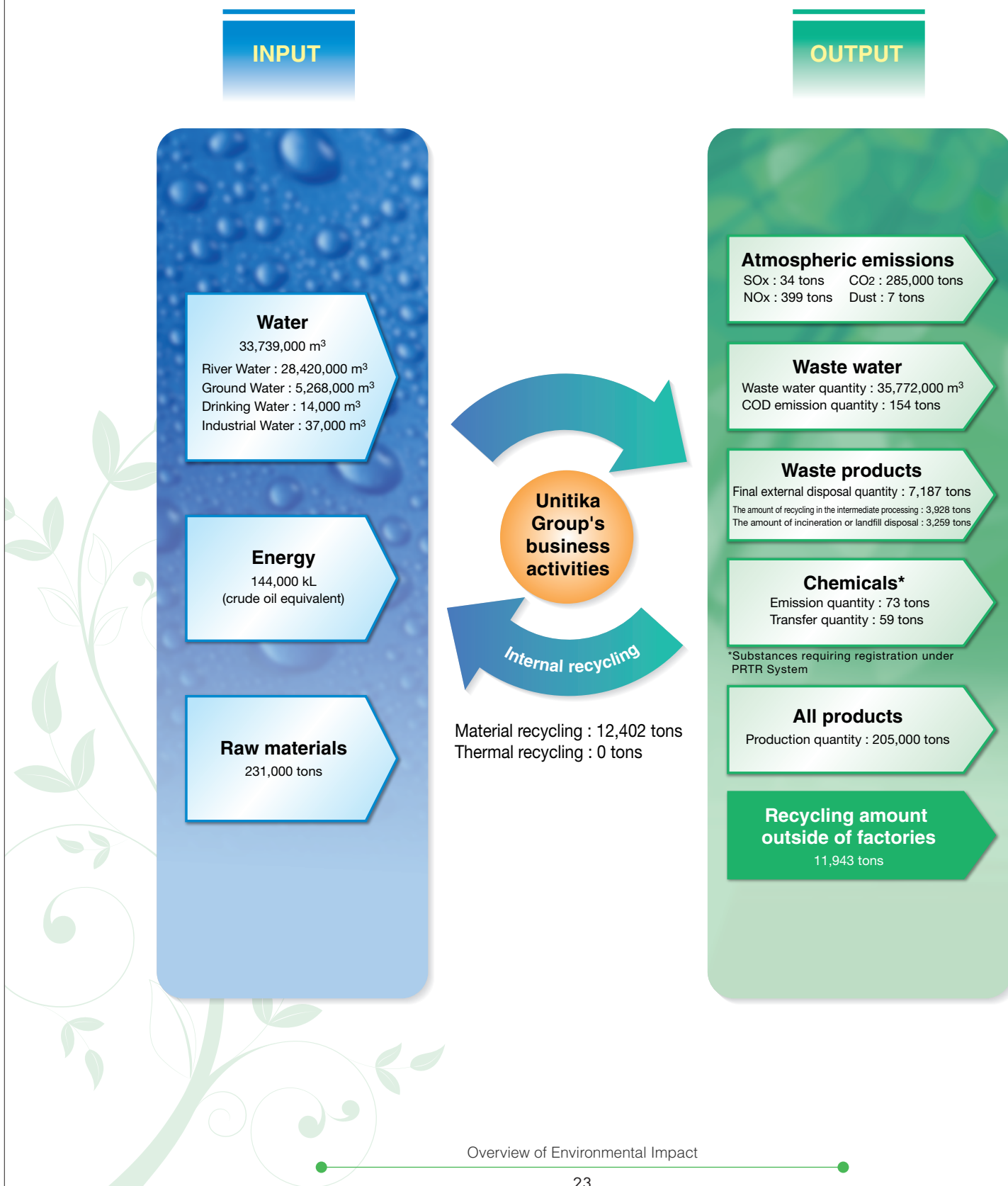
Applicable scope: Domestic plants and external Domestic group companies

Air quality Water Quality Noise Offensive Odor Others

Overview of Environmental Impact

Environmental Impact From Business Activities (FY 2016 Figures)

The diagram below shows the Unitika Group's materials flow for FY 2016.





## Environmental Accounting

The Unitika Group implements environmental accounting as part of our environment-conscious business activities. In conducting our environmental accounting, we follow the 2005 edition of the environmental accounting guidelines. The Unitika Group will continue to release clear and accurate environmental accounting data.

### Purpose of Environmental Accounting

- To make environmental preservation more efficient by quantitatively identifying the amounts of investments and expenses for environmental preservation, and to make decision-making processes in a more reasonable way.
- To disclose environmental accounting information to our stakeholders and to fulfill our responsibility to keep them informed.

### Method of Tallying Environmental Accounting Data

Data provided by : Unitika Domestic production sites & On-Site Group Companies and Union Co., Ltd. Osaka Dyeing Co., Ltd. Terabo Co., Ltd. Unitika Sparklite., Ltd.
Applicable period : April 1, 2016 to March 31, 2017
Calculation method : Investment amounts include the environmental investment on items for which the environment is not the main objective. Expense amounts include labor costs, general expenses and depreciation.

Unitika's fiscal 2016 environmental investment was 429 million yen. The main targets of investment are the ones regarding measures for the reduction of environmental footprint and the recycling of raw materials.

The expenses regarding environmental preservation were 991 million yen. The main items include the maintenance of pollution prevention equipment, the disposal of industrial waste (including recycling expenses), the research and development of eco-friendly products and technologies, and social activities such as afforestation and city beautification initiatives.

### Environmental Preservation Costs

(Millions of yen)

Category	FY 2016		Remarks	
	Capital investment	Cost		
Business area costs	Pollution prevention costs	114	419	Pollution (water, air and noise pollution) prevention measures
	Environmental preservation costs	1	8	Energy saving, Global warming prevention measures
	Resource recycling costs	199	302	Waste volume reduction, Material recycle, Disposal of PCB/Asbestos
Upstream/downstream costs	—	1	Green procurement activities	
Management activity costs	6	93	Environmental management system maintenance Environmental education, Impact monitoring, Increase of greenery within factories	
R&D costs	—	142	Developing environmentally-friendly products	
CSR costs	—	4	Regional cleaning activities	
Environmental damage costs	110	21	Cost for soil contamination countermeasures, Quantity-based taxes	
<b>Total</b>	<b>429</b>	<b>991</b>		

### Environmental Preservation Costs

The table lists items with a clear basis for calculation that have high substantive benefits for environmental preservation. Note that inferred benefits have not been calculated.

(Millions of yen)

Item	FY 2016
Income from sale of recycled resources	124
Water usage reduction from recirculation	2
Cost reduction from energy-savings	245
Reduction of costs associated with energy-efficient power sources and industrial waste reduction	8
Reduction of contribution designated by law	—
Reduction of waste disposal costs	5

For Life on Earth Tomorrow



— for the EARTH — for life on Earth tomorrow.

Unitika's eco-friendly products, for life on Earth.



Changing the environment of tomorrow, from our everyday life—

The Unitika Group is thinking of ecology with materials as the starting point.

Materials that create products, including daily necessities and parts for industrial products, play a significant role in moving forward towards a more earth-friendly lifestyle.

We wish to expand eco-friendly, human-friendly products even further.

Unitika cares about and creates life on Earth, for tomorrow.

## Let's learn about ecology for the sake of the planet!

### Biomass Materials (Polylactic Acid)

**Question 1** Is it true that tooth brushes can be made from plants?

Answer

Yes, it is even possible to make trays and garbage bags as well.

Toothbrushes, trays and garbage bags seen in the photo are made of a material called Terramac, which is made from an ingredient that uses corn starch. Terramac can be processed in a range of shapes just like plastic, so it is used for a variety of products.



RESIN

NON-WOVEN

FIBER



Toothbrushes (resins)



iiwan eating utensils for infants (resins)



Garbage bags (films)



Headrest covers (nonwoven fabrics)



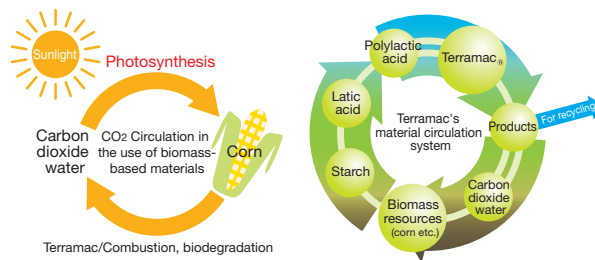
Ground stabilizing admixture (nonwoven fabrics)



Tea bags (fiber)



Eco-bags (fiber)



### Biomass Materials (High Function Plastic)

**Question 3** Is there a material that is friendly to the Earth and strong?

Answer

There is the one called XecoT, which is heat-resistant.

Materials made from the composition of plants were weak towards heat and could not be used for the parts of cars etc. Unitika developed a material called XecoT using castor oil extracted from seeds of castor-oil plants. It is a heat-resistant material that can be used for parts of cars and electronic devices.



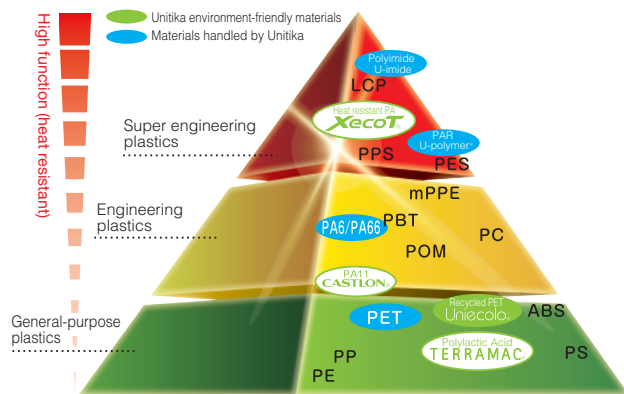
Castor-oil plant



High heat resistant polyamide resin, super engineered plastic for the next generation: XecoT



Plant-derived nylon fiber: CASTRON



Biomass Materials (Polylactic Acid / High Function Plastic)

Let's learn about ecology for the sake of the planet!

## Recycled/Environmentally-Friendly Materials

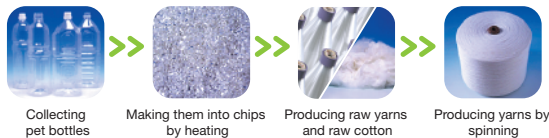
**Question 5** Can clothes be made from pet bottles?

Answer

Yes, even stylish clothes and sportswear can be made from pet bottles.

Unitika reproduces collected pet bottles as a polyester fiber called Uniecolo. Uniecolo is a soft fiber used for a variety of clothes, from stylish ones to sportswear.

[How pet bottles are transformed]

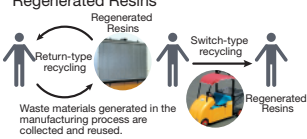


### Other recycling systems

Uniform recycle system:  
ECORALLY



Resin reusing system:  
Regenerated Resins



**Question 6** What is a material that is friendly to both humans and the environment?

Answer

For example, there is a material called SyLPH.

Cottons which produce SyLPH are made from fibers of eucalyptus trees which are systematically planted. It is not only soft and has a beautiful color, but also absorbs moisture including sweat. It is used for fashion clothing, sportswear, underwear and uniforms.

[No pollution from the factories, and the area of arable land is 1/10 compared to that of cotton]



### Other environmentally friendly materials

Cotton Spunlace without the use of a binder:  
Cottoace

100% cotton nonwoven fabric without the use of a binder



High efficiency filtration filter made of special textured yarn:  
Cartridge Filter

Filter for liquid with high particulate capturing functionality



## Energy-Saving Materials

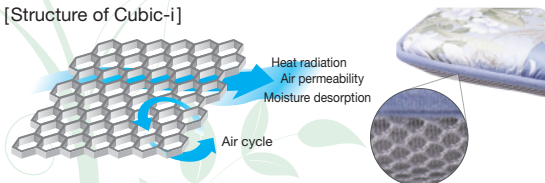
**Question 7** Does it help to reduce CO<sub>2</sub> if we do not often use air conditioners?

Answer

Yes, it helps to reduce CO<sub>2</sub> emissions if we reduce the amount of electricity we use.

CO<sub>2</sub> is emitted when producing electricity. So, if we do not often use air conditioners it will decrease CO<sub>2</sub> emissions. For instance, the use of a mattress made of high air permeability materials called Cubic-i allows you to sleep comfortably and reduce the time spent using air conditioners.

[Structure of Cubic-i]



### Other energy-saving materials

Comfortable medical material with excellent moisture absorbing and desorbing function:  
Hygra-LU

A comfortable material that reduces discomfort due to sweat with an excellent moisture absorbing and desorbing function



Nylon barrier film:  
EMBLEM NV

A flexible packaging film that contributes to source (resin) reduction, weight reduction and waste reduction as a substitute for cans and paper packs



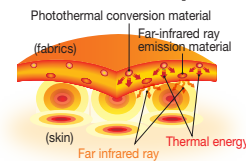
**Question 8** What is "Warm Biz"?

Answer

It is an initiative to wear warm clothes to decrease the time spent using heating.

Unitika reproduces collected pet bottles as a polyester fiber called Uniecolo. Uniecolo is a soft fiber used for a variety of clothes, from stylish ones to sportswear.

[Thermal Energy and Far-Infrared Ray Radiation Mechanism]



Thermotron RadiPoka

Sunlight shielding-type cooling material:  
SARACOL N

A cooling material that shields from sunlight



Advanced heat shielding cooling material made out of special ceramics:  
KOKAGE MAX

A cooling/UV cut material that shields from infrared rays of sunlight



### Production Site Information

Production Site	Air				Water								Location Main products
	SOx		NOx	Dust	BOD	COD	Suspended matter	Oil	Total Nitrogen		Total Phosphorus		
Unit	K-value	ppm	ppm	g/Nm <sup>3</sup>	mg/l	kg/day	mg/l	mg/l	mg/l	kg/day	mg/l	kg/day	
<b>Uji Plant</b> Site area: 311,781 m <sup>2</sup> ISO 14001 Certification No. JCOA-E-0249	—	29	199	0.025	—	1131	30	16	—	722	—	98	5 Uji-Tonouchi, Uji-shi, Kyoto, Japan 611-0021  Nylon resin, nylon fiber, engineering plastics, nylon/polyester film
	—	16	61	0.014	—	286	6	1	—	115	—	5	
<b>Okazaki Plant</b> Site area: 313,865 m <sup>2</sup> ISO 14001 Certification No. JCOA-E-0292	—	93	100	0.05	25	719	20	10	15	385	2	51	4-1 Hinakita-machi, Okazaki-shi, Aichi, Japan 444-8511  Polyester resin, polyester, fiber, spunbond (filament nonwoven fabric)
	—	16	70	0.001>	3	82	5	0	2	30	0.3	6	
<b>Tarui Plant</b> Site area: 156,224 m <sup>2</sup> ISO 14001 Certification No. JCOA-E-0323	11.5	—	150	0.3	40	109	50	5	120	43	16	5.6	2210 Tarui-cho, Fuwa-gun, Gifu, Japan 503-2121  Cotton nonwoven fabrics, glass cloth
	—	—	34	0.002	4	34	3	1	2	2	0.1	0.5	
<b>Tokiwa Mill</b> Site area: 64,530 m <sup>2</sup> ISO 14001 Certification No. JCOA-E-0221	17.5	—	130	0.3	80	—	100	2.5	—	—	—	—	88 Nakahara, Souja-shi, Okayama, Japan 719-1195  Cotton 100% yarn, Blended yarn with synthetic & cotton, Synthetic woven fabrics blended with cotton
	0.6	—	50	0.003	<1	—	<1	<1	—	—	—	—	

\* Values in table Regulation values  
Measured FY2016 values

Note 1: The displayed regulation values are the most rigorous values mandated by law (Air Pollution Control Law or Water Pollution Control Law), regulations, prefectural guidance or conventions.

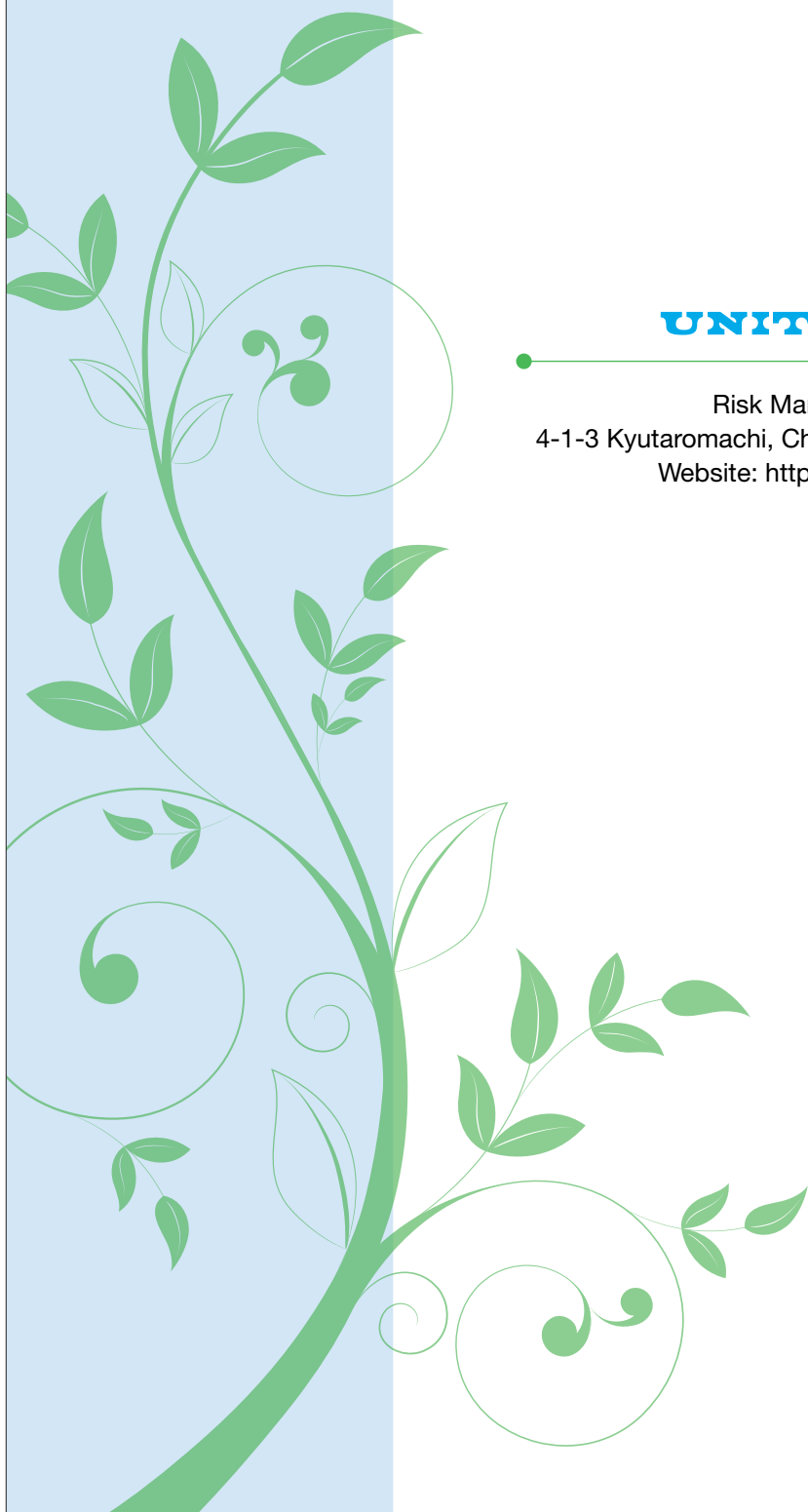
Note 2: Includes environmental impact from affiliates within site.

Note 3: SOx = sulfur oxides, NOx = nitrogen oxides, COD = chemical oxygen demand, BOD = biological oxygen demand

Note 4: The displayed air pollution values are the measured values for the major facilities at each site (totals are values for entire site).

Note 5: The displayed water pollution values are the highest values measured at the drain outlets at each site (load amounts are values for entire site).





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