

CSR Report 2014

Aiming at sustainable
growth in harmony with
environment, safety and health



Fusion of knowledge



The Nissan Chemical Group contributes to realization of sustainable society through our business activities.

The demand for new technologies and products increases, as the awareness on global environmental preservation rises. In response to the demand, we establish de-facto standard technology and create the most advanced materials that contribute to the sustainable development of society. Simultaneously, we offer affordable and fully functional products that respond to the needs of the global market.

Globally, population is growing and also rapidly aging. There are growing concerns over shortages of food and declining farmers in the domestic agricultural industry. Under this circumstance, we try to develop agrochemicals that will secure stable agricultural products' yields and lead to streamlining of agricultural work and saving labor. Furthermore, we develop pharmaceuticals that are required for healthier and wealthier lives of people.

As the changes of the times accelerate, various social issues are coming to light. By gathering our company's wisdom as well as integrating external knowledge into our work to solve the issues, we will keep on challenging the technological innovation.

Editing principle of this Report

Nissan Chemical began its Responsible Care activities in 1992 and had been continuously improving them in the field of "Environmental Protection", "Process Safety and Disaster Prevention", "Occupational Health and Safety" and "Chemicals and Products Safety". Information concerning the activities had been published in the "Environment and Safety Report" since 1999.

Meanwhile, the society's demand for corporate social responsibility and information disclosure is increasing year after year. In response to this demand, we decided to issue the "CSR Report" for the first time last year, encompassing not only reports on responsible care activities but also corporate governance, compliance, and social nature such as relationships with our stakeholders.

The "CSR Report 2014" is based on the Ministry of the Environment's "Environmental Report Guideline". However, we tried to make it more easy-to-follow by improving its structure such as adding a comparison table with ISO26000, the international standard for organizational social responsibility, and interviews with employees.

We will continue to make efforts to strengthen our CSR activities and enrich and advance the contents to help deepen understanding of our stakeholders. We would be grateful if you could read this Report and give us your comments and opinions.

Reporting period

FY 2013 (April 2013 to March 2014)

*The Occupational Accidents data (P17) are from January to December 2013.

Report coverage

This Report mainly covers the CSR activities as part of the corporate activities of Nissan Chemical Industries, Ltd.

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Message from the President

Corporate Vision

Aiming at becoming a “Corporation that Contributes to Human Survival and Development”.

Our Company Group began its 3-year midterm business plan, Vista 2015 Stage II with a slogan of “Only challenge to change makes us keep winning!” Under this plan, we are steadily implementing various actions based on the basic strategies such as development of new products that respond to the technology advancement of our clients in the field of performance materials, establishment of a local subsidiary in China, and expansion of business in the field of pharmaceuticals for animals as a new business.

During this fiscal year, our business is steadily growing, centered on performance materials and agrochemicals. However, the changes of business environment are accelerating. In order to further secure our earnings growth base, we need to not only accurately understand the demands of the market and appropriate respond to the demands but also accelerate our corporate decision making process.

In order to achieve it, during this fiscal year, we undertook a management system reform. By introducing the Executive Officers system, we try to clarify each role of management and business execution, strengthen our capacity to develop and implement the business strategies, reduce the number of Directors, and activate the Board of Directors. We also elected a Director from outside of the Company. By incorporating external views, we will try to further enhance the soundness and transparency of business administration.

In order to achieve our Corporate Vision, we will try to respond to the expectation of all stakeholders by developing environmentally-friendly products, enriching corporate governance, ensuring compliance, strengthening risk management systems and proactively undertaking CSR activities such as promotion of responsible care.

NISSAN CHEMICAL INDUSTRIES, LTD.
President & CEO

Kojiro Kinoshita



Business Strategy

Midterm Business Plan Vista 2015 Stage II

We began to implement the 6-year midterm business plan, Vista 2015 Stage II, in April 2010 and had been making efforts to enhance our true strength as a Value-Creating Enterprise dedicated to growth in partnership with customers. In the first 3 years during Stage I (from FY 2010 to 2012), we successfully gained certain results including launching of new products in the performance materials and agrochemicals fields and

development of new materials that would be the future core of our business. Furthermore, we reinforced research infrastructure and expanded overseas operation base for our future business.

As a continuous effort, we started implementation of Stage II (from FY 2013 to 2015) in April last year. We will continue working towards the realization of our ideal form while clarifying our corporate vision.

Vision of FY 2015

To establish the status as the chemical manufacturer with growth capacity and stability by setting the fields of Performance Materials (electronic, organic, inorganic)

and Life Science (agrochemicals, pharmaceuticals) as a pair of wheels to lead the growth and solidifying the revenue base of chemical products and our subsidiaries.

Basic Strategies

1. Creation of new products and new businesses

- 1) Launching of new business with highly unique materials, development of new products and new agents based on the market needs
- 2) M&A and acquisition of products to expand businesses
- 3) Establishment of the research structure to take full advantage of the Company's core technologies
- 4) Introduction of advanced technologies through open innovation, etc.

2. Promotion of a business structure reform

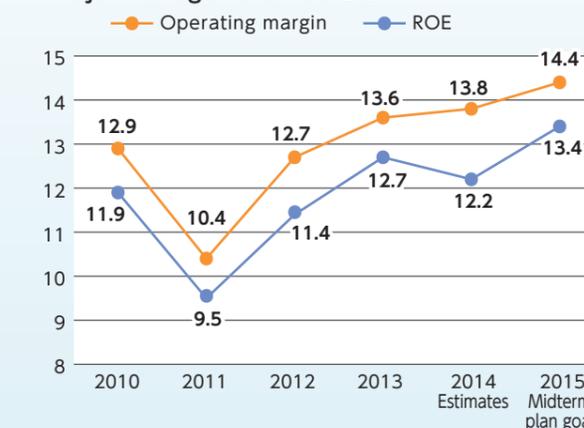
- 1) Enhancing competitiveness by reducing cost at all plants
- 2) Solidifying and expanding business base for the growing overseas market

Major Financial Index

■ Sales·Operating income [100 million yen]



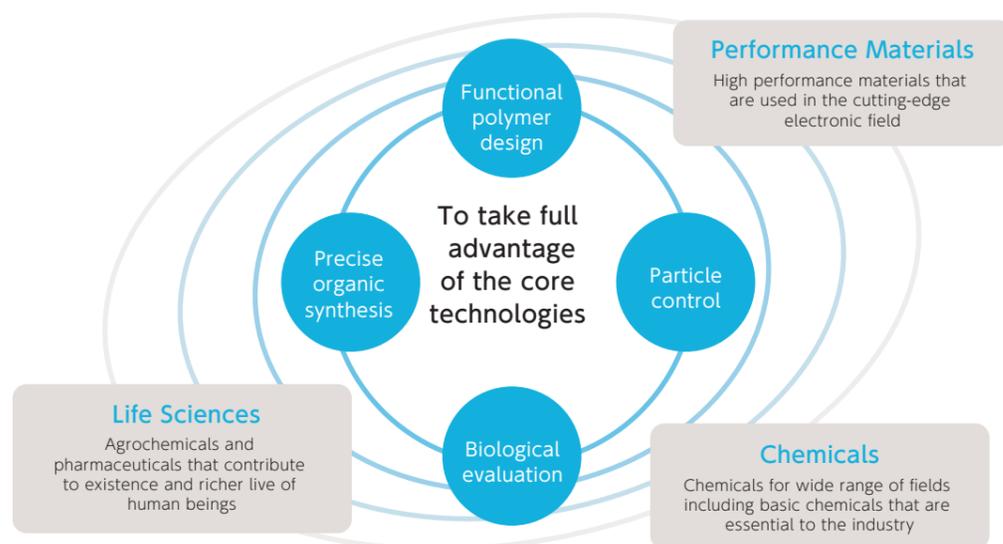
■ Major management index [%]



Corporate Overview

- Corporate Name NISSAN CHEMICAL INDUSTRIES, LTD.
- Head Office 7-1, Kanda Nishiki-cho 3-chome,
Chiyoda-ku, Tokyo 101-0054, Japan
TEL 03-3296-8111
- Founded 1887
- Capital stock 18,942 million yen
(As of the end of March 2014)

Business fields



Performance Materials

- Display materials...Placing "SUNEVER", a polyimide resin for liquid-crystal glass, as our core product, we conduct sales and development of products in response to the needs of the display market that is expanding mainly in Asia.
- Semiconductor materials...We provide materials that are essential for semiconductor manufacturing process to our customers, with a focus on BARC (a bottom anti-reflective coating material) and multi layer process materials.
- Inorganic colloid...We have been developing new uses of inorganic colloid for various industries over a long period of time. These days, we receive high recognition in the fields of battery, hard coating agent for optical films, and polishing agent for silicon wafer.

Life Sciences

- Agrochemicals...We enrich our product lineups through research and development of new agrochemicals for major crops across the world and buying out the agents from other companies, and sell them in Japan and overseas.
- Pharmaceuticals...By making full use of the strategically established chemical library, cutting-edge evaluation function and precise organic synthesis technology, we will keep challenging research and development of innovative new drugs.

Chemicals

- Basic chemicals...We provide our products to a wide range of fields. Our products are centered on industrial chemicals such as ammonia, nitric acid and sulfuric acid as well as high-purity products for semiconductor cleaning.
- Fine chemicals...We conduct our business with a focus on chemicals to keep environment such as special epoxy compound for sealant, "TEPIC", and bactericide and disinfectant, "HI-LITE".

Subsidiaries

Domestic consolidated subsidiaries

- Nissei Corporation(Sales of chemicals, insurance business, real estate business)
- Nissan Butsuryu Co., Ltd.(Logistics business)
- Nissan Green & Landscape Co., Ltd.(Design and implementation of gardening, civil engineering and planting greens work)
- Nissan Engineering, Ltd.(Plant engineering)
- Environmental Technical Laboratory, Ltd.
(Environmental protection consulting, environmental measurement)
- Nihon Hiryo Co., Ltd.(Manufacturing and sales of manure)

Equity method affiliates

- Sun Agro Co., Ltd.(Manufacturing and sales of manure)
- Clariant Catalysts (Japan) K.K.(Manufacturing and sales of industrial catalyst)

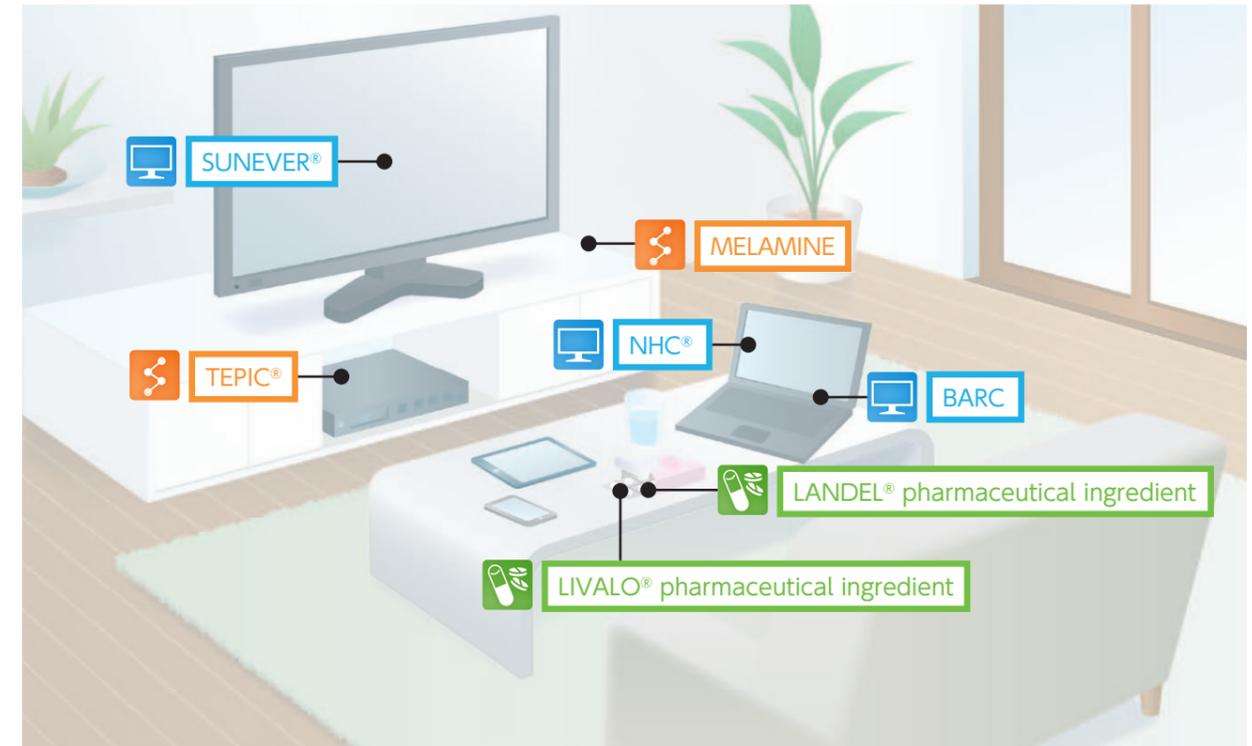
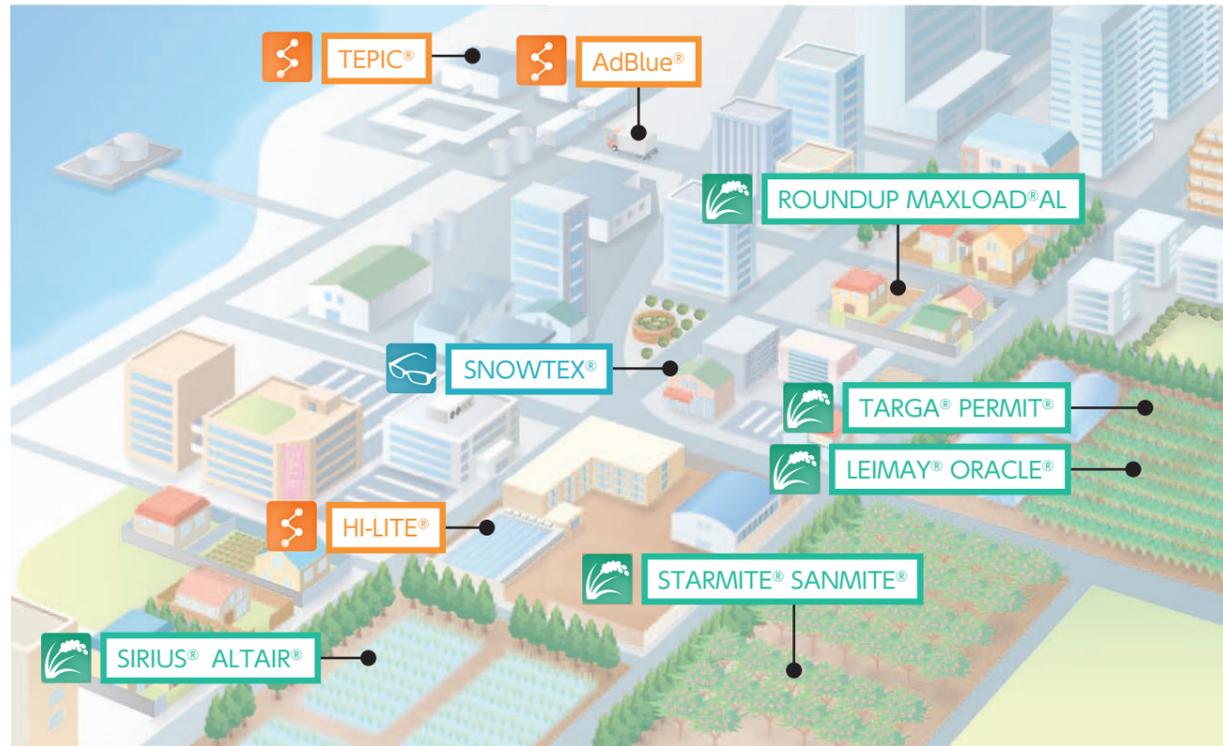
Overseas Subsidiaries



- | | |
|--|--|
| <p>① NCK Co., Ltd.
(Korea: Research, development and sales of electronic materials)</p> <p>② Nissan Chemical Taiwan Co. Ltd.
(Taiwan: Research and sales of electronic materials)</p> <p>③ Nissan Chemical America Corporation
(USA: Manufacturing and sales of inorganic materials)</p> | <p>④ Nissan Chemical Product (Shanghai) Co., Ltd.
(China: Support for the sales and development and distribution of agricultural chemicals)</p> <p>⑤ Nissan Chemical Europe S.A.R.L.
(France: Sales of agricultural chemicals)</p> <p>⑥ Nissan Chemical Agro Korea Ltd.
(Korea: Sales of agricultural chemicals)</p> |
|--|--|

Products of Nissan Chemical that Play Active Parts in the Society

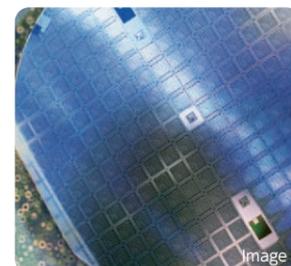
We introduce our three business fields and our products that are used in various parts of the society.



Performance Materials

Electronic Materials

- SUNEVER® (Liquid crystal aligning agent, Polyimide)
- NHC® (insulating hard coat for LCD)
- BARC (bottom anti-reflective coating for semiconductor lithography)
- OPTIFOCUS® (coating for imaging sensor)



Inorganic Materials

- SNOWTEX® (polishing agent, surface treatment material)
- ORGANOSILICASOL
- SUNCOLLOID®
- CELNAX® (antistatic agent, heat ray shield material)
- NanoUse® (refractive index adjustment material)

Life Science

Agrochemicals

- | Herbicides | Insecticide | Fungicide |
|--------------------|-------------|------------|
| ● SIRIUS® | ● STARMITE® | ● LEIMAY® |
| ● PERMIT® | ● SANMITE® | ● ORACLE® |
| ● ROUNDUP MAXLOAD® | | ● GREATUM® |
| ● TARGA® | | ● IKARGA® |
| ● ALTAIR® | | |



Pharmaceuticals

- LIVALO® pharmaceutical ingredient (anti-cholesterol agent)
- LANDEL® pharmaceutical ingredient (anti-hypertension agent)
- New medicines under development**
- NT-702 (asthma care, arteriosclerosis obliterans treatment agent)
- NTC-801 (anti-arrhythmic agent)
- NIP-022 (thrombocytopenia treatment agent)



Chemicals

Chemicals

- MELAMINE (Plywood bonding agent raw materials, etc)
- High purity agent
- High-grade urea solution (AdBlue®)
- FINE OXOCALL®
- Other major products Ammonia, nitric acid, sulfuric acid, chemicals for construction, etc.
- TEPIC® (Special epoxy compound for sealant)
- MELAMINE CYANYRATE (MC)
- PHOSMEL® (flame retardant)
- HI-LITE® (sanitizing agent, disinfectant)
- NISSAN REISHI

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Development of New Products that Contribute to the Society

Taking full advantage of our core technology, the Company develops new products that contribute to the society.

Cell medicine materials

We are developing materials that contribute to the latest cell culture technologies such as 3D cell culture medium and in-vitro amplification agent for the platelet generated from iPS cells.

For the 3D cell culture medium "FCeM® Series" released in October of this year, we adopted the natural polysaccharides discovered in our research for a culture substratum and combined it with a low adhesive cell plate, enabling the culture of cells in the environment that is closer to the inside of a biological body than conventional 2D culture.

We also succeeded in developing a new method for 3D culture suited for the mass culture of human pluripotential stem cells (ES/iPS cells).

On the other hand, in-vitro amplification agent for platelet is used for mass-producing platelets, which have the hemostatic effect, from iPS cells. As there is a chronic shortage of platelets, it is expected that by producing a large amount of platelets from iPS cells, it will be possible to supply platelets for transfusion therapy stably.



3D cell culture medium "FCeM series"

Active pharmaceutical ingredient for animals, "Fluralaner"

We invented "Fluralaner" which is the active substance of veterinary medical product "BRAVECTO" developed by MSD Animal Health (MSD), the global animal health business department of Merck & Co., Inc. Fluralaner belongs to the isoxazoline group that possesses a new mode of action different from existing anti-external parasites drugs for companion animals. We manufacture and supply Fluralaner to MSD as the active pharmaceutical ingredient for their product.

"BRAVECTO" is a chewable tablet (oral administration) and provides unique immediate tick and flea killing activity for dogs. It is persistent for 12 week (8 weeks for lone star tick), longer than existing once-monthly commercialized products.

MSD started the sales of BRAVECTO in EU countries and the USA after April 2014, and endeavors to obtain marketing authorization in the other countries including Japan.



Veterinary medical product "BRAVECTO"

Supramolecular gelator "Nano-fiber Gel"

Our company has enriched the lineup of premixed products, for which our original supramolecular gelator "Nano-fiber Gel" is mixed with other components in advance. The low-molecular "Nano-fiber Gel," which is constituted by palmitic acid and dipeptide, is less sticky and has a water-like texture compared with polymeric gels. Therefore, it is effective as a gel spray substrate. Since it solates rapidly with a gentle push with the finger, the nozzle will not be clogged, and it becomes misty when sprayed. When it attaches to a material, it turns into a gel swiftly, without dripping. In addition, we found a material whose water content ratio is nearly 90% and that can adjust a weakly acidic stick.

This is sold as an additive to quasi drugs and pharmaceutical products, in addition to cosmetics, such as sprays for skincare and body lotion, moisturizing and medicinal creams, and whitening sticks.



Spray



Cream

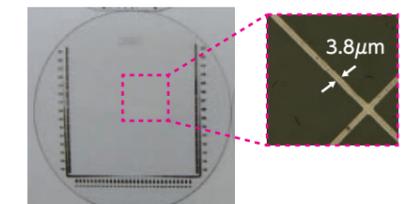
Electroless plating agent

We have been developing the applications of Hypertech®, the functional coating material including multi-branched organic nanoparticles, as mainly surface and highly refractive materials. Some clients have adopted the applications we developed.

We have developed a new material that can reduce the amount of metal used when producing wires for the touch panels of smartphones, tablet PCs, etc. to less than one tenth as an electroless plating agent.

For metallic wires, the entire surface of a substrate is covered with a metallic thin film in a vacuum chamber, and unnecessary parts are removed with an acid, but the removal amount is over 90%.

With this material, it is possible to draw a wiring pattern, and metal adheres to necessary parts only. Accordingly, metal coating can be minimized. Furthermore, since vacuuming devices are not required, production costs can be reduced. We concentrate on the increase of clients by approaching new clients with samples.



Nickel wires produced on glass

Promotion of CSR

The foundation of our business activities is our corporate principle: "Contributing to the society in harmony with the environment based on our excellent technologies, products, and services", and we believe that implementation of this principle is our CSR activities.

In order to strengthen our CSR activities, we established the CSR Promotion Council. The Secretariat of the Council is in the Corporate Planning Department.

CSR Basic Policies

The Company defines the stakeholders as "customers, shareholders/investors, employees, communities/society, and business partners" and decided the following basic policies in order to respond to the expectations of all stakeholders and strengthen their confidence in us.

- 1.To strengthen corporate governance and secure stability, soundness and transparency of management.
- 2.To further focus on appropriate chemical substance management and reduction in environmental load and try to protect global environment.
- 3.To place value on the communication with all stakeholders and disclose information appropriately.



Corporate Governance

Basic Principles

The Company understands corporate governance as "the system for sound and efficient management to achieve sustainable and long-term profit for our stakeholders". In order to achieve it, we are working on the acceleration of management decision-making,

clarification of management and executive operation responsibilities and strengthening the auditing function of the management, compliance system, risk management and internal control system.

Overview of the Corporate Governance

Management Structure

Our "Board of Directors", consisted of 7 Directors including 1 external Director who is disinterested in the Company, is held regularly every month, and important decisions concerning management are made at the meeting. At the same time, the Board of Directors has a function of supervising the business execution of the Directors.

In April 2014, we introduced the Executive Officers' system. By clarifying the decision-making and execution functions of the management, we will try to strengthen both functions and enhance our capacity to establish and implement our management strategies. At the same time, we clarified the management responsibilities and executive operation responsibilities by making the term of the office of Directors and Executive Officers for 1 year. Important matters concerning the management are decided at

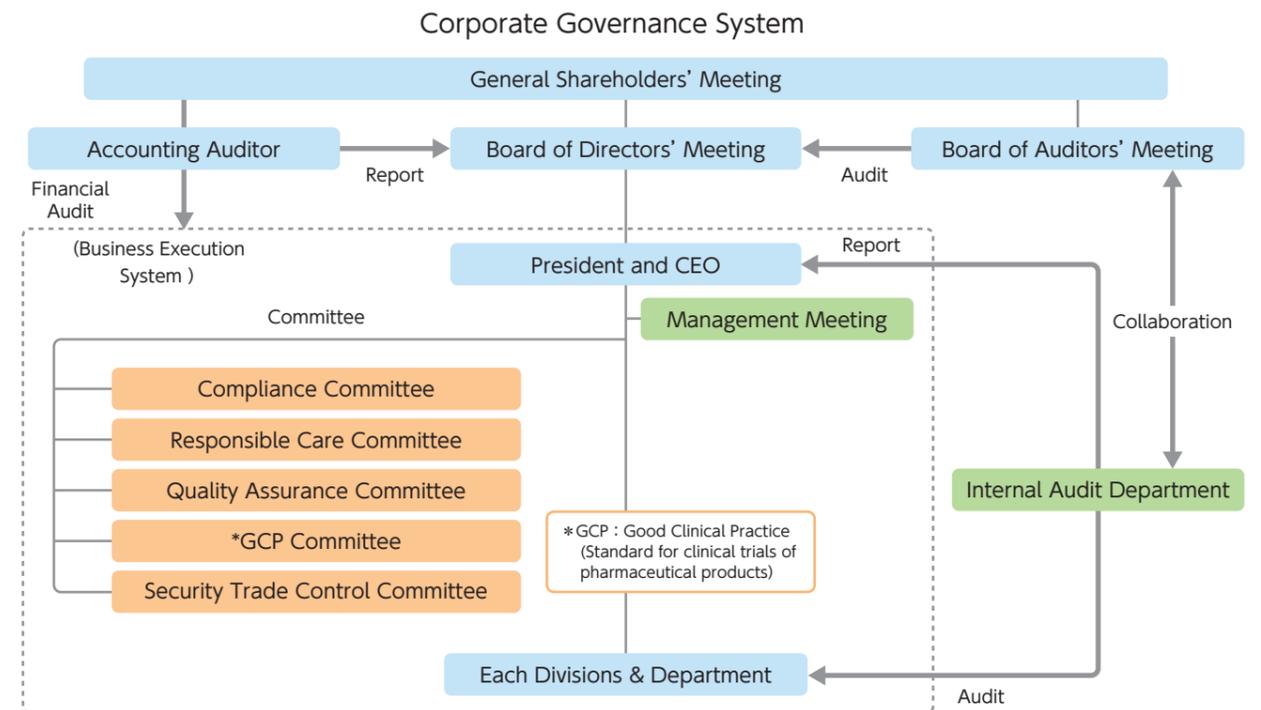
the "Board of Directors" or "Management Council" which is consisted of Directors who also hold the positions of Executive Officers in accordance with the Internal Regulations of the Company.

Internal Audit

The Company has the Internal Audit Unit, and based on the Internal Auditing Regulations, fair and independent internal audit is carried out. The business activities are checked by the Departments of Accounting, Legal Matters, Intellectual Property, and Environment, Safety, and Quality Assurance from the experts point of view.

Audit by Corporate Auditors

In accordance with the audit plan developed at the Board of Auditors' Meeting, the Corporate Auditors attend Board of Directors and other important meetings and audit business execution of the Directors.



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Compliance

The Company Group values the management that stresses compliance, because we believe that complying with law, regulations and social norms are the conditions for survival and development of a corporation. Therefore, we vigorously promote compliance throughout our group companies. In addition, we have the "Compliance Committee" in place as an organization that maintains and improves compliance. The chairperson of the Committee is the Company's president and the members include experts from outside of the Company. The Committee

provides education and guidance, revises regulations and develops manuals concerning compliance. Furthermore, it receives reports from the heads of Departments, Units, individual relevant Committees, and Presidents of our subsidiaries, regularly audits compliance status and provides recommendations for improvement, as needed.

We also try to obtain sound social recognition as a good corporate citizen by setting the compliance rules and carrying out our daily activities with more sincerity than ever.

Corporate Ethics Guiding Principles

- (1) We comply with laws and regulations in Japan and overseas. We respect for social norms and undertake sensible business activities as a member of the international society.
- (2) We develop and provide socially useful and safe technologies, products and services.
- (3) We voluntary and proactively work on environmental protection, no accidents and no disasters.
- (4) We properly disclose corporate information and secure transparency of the management.
- (5) We respect for individual personality and create a positive and employee-friendly workplace.
- (6) We properly manage information. We also give sufficient consideration for the protection of personal information.
- (7) We conduct social contribution activities as a good corporate citizen.

Respect for Human Rights

The Company Group puts into practice the Corporate Ethics Guiding Principle, "5) We respect for individual personality and create a positive and employee-friendly workplace." We respect for the basic human rights, value individuality and views of diverse employees regardless of their age, gender and nationality, and create an employee-friendly working environment by establishing various systems for good work-life balance such as childcare leave system.

We also clearly states prohibition of power harassment and sexual harassment in the Working Regulations and keep all employees informed about it. By way of caution, the consultation hotline system is also in place.

Consultation Hotline

Employees can directly report to the Compliance Committee through the hotline.

If non-compliance or possibility of non-compliance is detected, in principle, it should be handled based on the standard work procedure, including reporting to supervisor. However, if prompt and effective handling is difficult, the hotline system can be used to prevent non-compliance or to solve issues at an early stage. The reporting can be anonymous. Even if the reporter's name is specified, he/she will not receive any disadvantages by using this system.

Risk Management System

Management Office and assign Risk Managers in each department, office and subsidiary. In collaboration with the various Committees including Compliance Committee, they extract and evaluate risks of non-compliance of their workplace, check the implementation status of countermeasures against the risks, strengthen risk and emergency responses systems, and develop Business

Continuity Plan (BCP).

We also carry out risk management meeting that is composed of CRO, Risk Managers, and the Risk Management Office. At the meeting, information concerning risk management of the entire corporate group is shared through annual plan of risk management activities, annual review and activity report from each department.



Information Disclosure

General Meeting of Shareholders

The Company considers the General Meeting of Shareholders as a venue of dialogue between our shareholders and the management. In order to have many shareholders at the General Meeting of Shareholders, we avoid organizing the regular General Meeting of Shareholders on the first concentrated day.



IR Briefing

In Japan, we conduct the IR Briefing Meeting for analysts and newspaper journalists twice a year. Overseas, we conduct the IR Briefing Meeting for investors once a year.

We also publish the brief Financial Results Report, Securities Report, Business Report, Annual Report, and Financial Settlement Supplementary Information on our home page.



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Promotion of the Responsible Care Activities

We make efforts to continuously improve "Environment, Safety and Health" throughout the life cycle of our products from development to disposal.

Contents of the Responsible Care Activities

The Responsible Care (RC) activities are conducted voluntarily by firms that produce or handle chemical materials for securing "Environment, Safety and Health" in all processes including chemical material development, production, distribution, use, final consumption, disposal, and recycling, and then executing and improving measures for safety, health, and environmental protection, based on the principles of self-decision and self-responsibility.

The Company has been a member of the Responsible Care Committee of Japan Chemical Industry Association since its establishment (it was called Responsible Care Council) and is promoting the activities to achieve the following 5 items.



Environmental Protection

Protecting people's health and nature globally.

Process Safety and Disaster Prevention

Working to prevent facilities disaster, and in case of disaster, minimizing damage.

Occupational Safety and Health

Protecting safety and health of workers.

Logistics Safety

We make efforts to prevent accidents and injuries during logistics.

Chemicals and Products Safety

Clear identifying the properties and methods of handling chemical products and protecting health, safety and the environment for all people who handle these products, including our customers.

The Responsible Care logo is a design of hands holding molecular model, and it expresses our intention to handle chemical substances with care. It is designated by the International Council of Chemical Associations (ICCA) and is a global logo that can be used by any member corporations of the Responsible Care Committee.



Basic Principles concerning Responsible Care

The Company tries to secure and enhance "Environment, Safety and Health" that are relevant to all of our business activities through the "Responsible Care activities". We set the basic principles and promote our activities in order to act in good faith as a good corporate citizen, be always harmonized with the environment in all activities, secure safety and health of the public and employees, respond to the trust from the society, and support our employees' practices as good citizen by enhancing their awareness on global environment protection and living environment improvement.

- (1) To continuously improve the environment, safety and health performance over the entire lifecycle from development to disposal waste of our products.
- (2) To manage our business activities so as to prevent adverse impact on people and environment as well as to take into account the environment, health and safety during transporting, storing and disposing our products.
- (3) To examine the environment, health and safety aspects from the research and development stage, and to develop products and technologies with lower impact on the environment, health and safety.
- (4) To promote conservation of resource and energy, to minimize waste emissions and to recycle waste effectively.
- (5) To address the concerns of government officials and public regarding the influence of our products and operations on the environment, health and safety, while disclosing relevant information and participating in dialogue to promote proper understanding of the issues.
- (6) To ensure risk characterization and risk management based on sound scientific information in order to reinforce product stewardship.
- (7) To comply laws, regulations and standards, and to promote and meet voluntary initiatives for improving the environment, health and safety.
- (8) To ensure accountability in order to address the expectations of domestic and worldwide stakeholders for the promotion of the environment, health and safety.

Establishment: June 24, 1996

Revision: April 25, 2014

Responsible Care Management System

We established the Responsible Care Committee as a group that promotes Responsible Care activities. The Committee meeting is regularly held once a year. The Committee has the head of the Environment, Safety and Quality Assurance Department Manager as the chairperson and is consisted of the Executive Officer of Environment, Safety and Quality Assurance Department, the head of Production Technology Department, Personnel Department, Purchasing Department, each Business Division ,

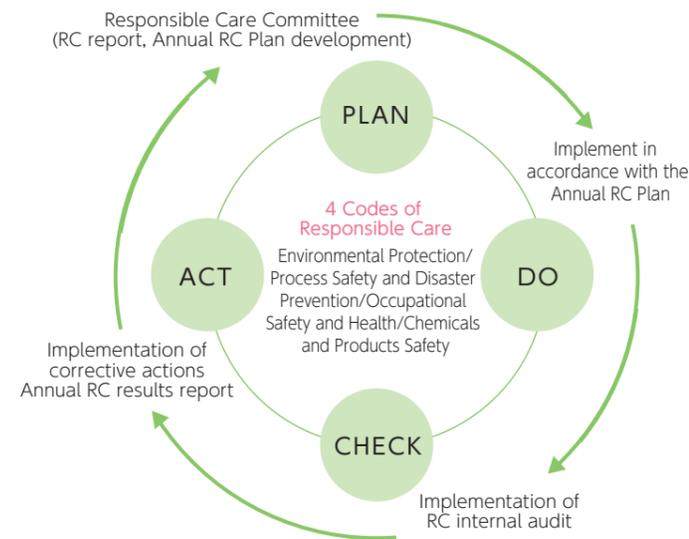
each Plant and each Laboratory. The secretariat is located in the Environment, Safety and Quality Assurance Department. At the Committee, activity results, audit results, their improvement status, and compliance status to relevant laws and regulations of the year for the Company and subsidiaries are reported to the members, and the activity objectives, etc. concerning the Responsible Care for the next fiscal year are discussed.

Responsible Care Management System



Practice of Responsible Care

Our Company's Responsible Care Activities are implemented in accordance with the annual schedule based on the PDCA cycle, to be aimed continuous improvement year by year.



As a tool to promote activities, the Company's 5 plants acquired ISO 14001 (EMS), an international standard for environment management system, and they have been maintaining and updating the certificate through the certifying body since then.

	Year of acquisition	Certification body	Certification number
Onoda Plant	October 2000	Japan Chemical Quality Assurance Ltd.	JCQA-E-0180
Saitama Plant	October 2000	Same as above.	JCQA-E-0182
Nagoya Plant	July 2001	Same as above.	JCQA-E-0271
Sodegaura Plant	October 2002	Same as above.	JCQA-E-0408
Toyama Plant	March 2003	Same as above.	JCQA-E-0456

The Responsible Care activities are monitored by the ISO 14001 internal environmental audit and Responsible Care audit conducted by the Environment and Safety Group. In FY 2013, the audit was conducted targeting 5 plants, 5 laboratories, 13 sites of 9 affiliates (Group companies) to improve the management systems.

Message

"Aiming at further improvement of management systems"

Environment, Safety, and Quality Assurance Department, Environment and Safety Group Leader, **Ayako Nakajima**

The work of the Environment and Safety Group is to manage and promote Responsible Care activities of the entire Company. The Group promotes continuous improvement for the entire Company by encouraging each plant, laboratory, business division and affiliates to set the Responsible Care objectives. The Group will promote the Responsible Care activities not only to achieve zero labor disaster and reduction in energy consumption and wastes discharge amount, but also to aim at developing products and technologies that contribute to the society in consideration for environment, safety and health.



Occupational Safety and Health

We try to create a pleasant work environment where all employees can work in good health and safely.

Occupational Safety

Since 2007, we determined "wearing appropriate protectors", "suspension of rotating machine during work (such as maintenance)", and "compliance with SOP" as basic safety rules, and we have been making efforts to keep everyone informed about it, including our subcontract companies. We conduct thorough examination of causes of industrial accidents due to violation of safety rules and share the information with the other sites in order to eliminate similar accidents. As a result, we managed to reduce the rule violation cases from 40% to 10%. We will continuously carry out our activities to achieve zero accidents.



Group safety education

Occupational Health

In order to prevent health hazards to employees, we engage in the improvement of the working environment for handling powder and new chemical substances. Especially, research laboratories sometimes use substances that are strongly bioactive or suspected of causing cancer, and so we evaluate the safety of chemical substances and assess their risks in advance, strengthen local exhaust equipment, and make containment facilities.



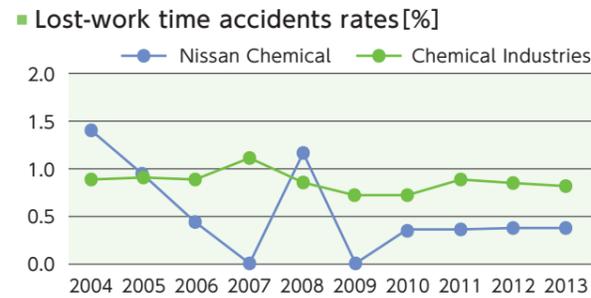
Exhaust ventilations for specific chemical substances

Safety Results

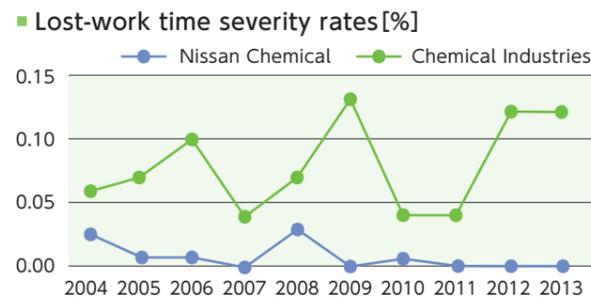
In FY 2013, there was one lost work time accident, and seven accidents that did not require time off from work. Although the number of the former was the same as the previous year, the latter increased by one compared with the previous year.

As for accidents that cause employees to take days off, there was fracture after stumbling and falling, but there were no serious industrial accidents. Nowadays, workers often fall and have a crick in the back, and so we promote them to do radio calisthenics at the beginning of working hours or after a lunch break.

As for the safety results, both frequency rate and severity rate were lower than the average rates of the industry. We will strengthen our safety activities aiming at zero accidents.



Lost-work time accidents rates = (Number of people affected by disasters that require time off from work) ÷ (total working hours) × 1,000,000



Lost-work time severity rates = (Lost days) ÷ (total working hours) × 1,000

Process Safety and Disaster Prevention

We try to prevent occurrence of accidents such as fire, explosion and leakage of toxic materials and minimize the damage at the time of a large-scale disaster.

Process Safety and Disaster Prevention

Ensuring safety is the foundation of our production activities. We set the "Safety and Stable Operation" as our priority and work on ensuring safety and stable operation together with our affiliates and subcontracting companies.

In order to achieve stable operation, we provide educational training workshops such as Process and Facility Risk Prediction, and conduct pre-manufacturing assessment and carry out planned facility investment and facility maintenance.

Considering the fact that there are many accidents at other companies' chemical plants, we review the accident reports and re-inspect similar locations of the accidents in order to avoid similar accidents and enhance our safety capacity.



Disaster prevention drill at the naphtha transportation handling location

Emergency Response

Emergency regulations are in place at our plants and laboratories, taking into account characteristics of each area and locality. Based on the regulations, we conduct various drills such as earthquake disaster prevention, first-aid fire fighting, and communication and reporting every year in order to ensure appropriate responses at the time of emergency. We also install AED at all of our sites and provide life-saving training to our employees.



Firefighting techniques gathering

Logistics Safety

The Company is trying to secure safety in the logistics process of our products and ensure appropriate responses at the time of accidents in collaboration with Nissan Butsuryu Co., Ltd., our subsidiary handles the logistics businesses. We are in the process of introducing the container yellow-card that has additional information such as UN number and guideline number on the labels of containers and packages. We also train drivers to carry the yellow card with them all the time when they transport products with a tank truck.

Nissan Chemical also participates in the regular training programs that are conducted by Nissan Butsuryu together with the public fire department and confirm our responses at the time of transportation accidents.



Training against Transportation Accidents



Yellow card and Container yellow card

Topics

Reception of the Commissioner of the Fire and Disaster Management Agency Award

Our Saitama Plant received the "2013 Award for Excellent Hazardous Materials Handling Business Establishment Commissioner of the Fire and Disaster Management Agency Award".

We learned lessons from the heavy oil spill accidents in July 1988, and under the strong determination of not to repeat hazardous material accidents, we have been making steady efforts towards safety. The Award was given as a recognition result of evaluating our efforts as well as continuation of no accident and no disasters that require time off from work.



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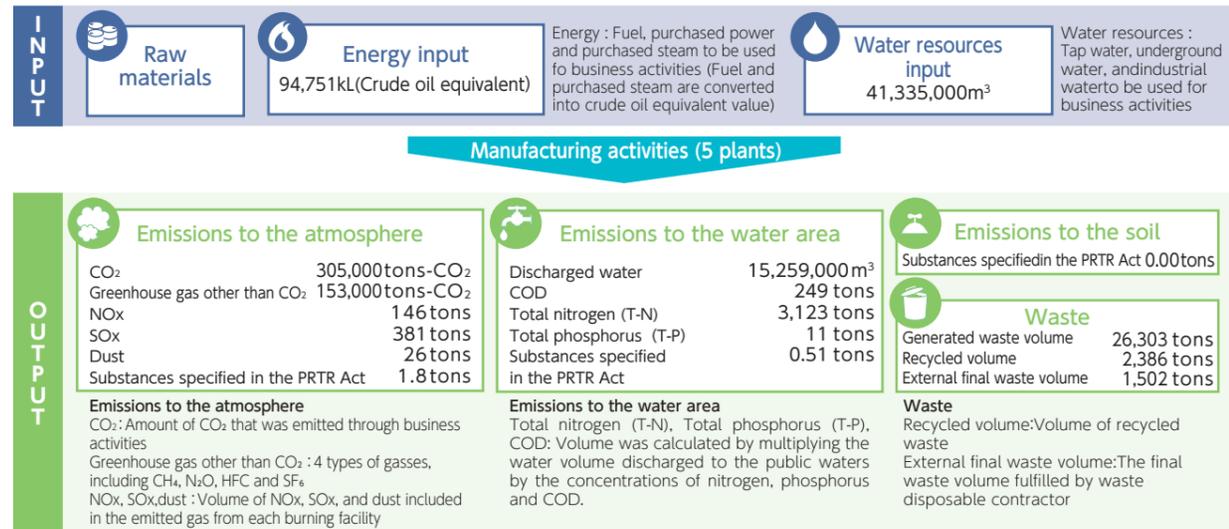
Environmental Performance

We calculate the total inputs of energy and resources that are needed for our manufacturing activities and make efforts to understand their environmental load on the air and water.

Environmental Load from Manufacturing Activities

The environmental burden flowchart shows the materials, energy, water inputted for manufacturing products, production, discharge to atmosphere and the aquatic environment, and the output of industrial wastes. We make efforts to grasp the entire picture of environmental burdens produced by Nissan Chemical.

2013 Environmental Load Results Flow



Investment in Facilities for Environment/Safety

As shown by cases in recent years, accidents at chemical plants bring tremendous damage to the neighboring areas. We not only conduct daily inspection but also carry out continuous and planned facility investment in order to secure safe and stable operation.

We also continuously make investment for environmental consideration and environmental load reduction.

Investment amount for environmental facilities/safety facilities [1 million yen]



Pre-Assessment for Responsible Care and Quality Assurance

In order to secure environmental safety in our business activities and quality assurance, the Company conducts evaluation at each step from synthesizing chemical substances (or products), research and development, manufacturing to launching of the products. This evaluation is conducted not only for new products and new brand products but also at the time when the process is changed for existing products in order to assess the applicability of the business.

Conducting Pre-Assessment

Stage	Section in charge of evaluation	2011	2012	2013
Research and development	Research Laboratories	23	24	16
Industrialization Study	Plant (technological development section)	5	8	14
Production	Manufacturing plant (manufacturing section)	92	106	110
Total		120	138	140

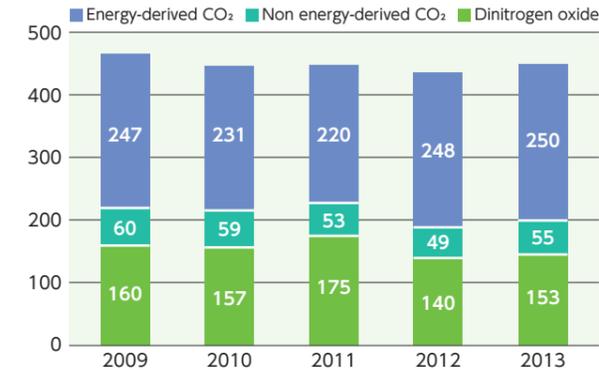
Evaluation item	
1. Compliance with laws and agreements	5. Product safety and reduction of environmental loads
2. Safety and environmental impact of chemical substances we handle	6. Safety in logistics
3. Occupational safety and health for workers	7. Reduction of industrial wastes
4. Safety of used equipment	8. Quality assurance
	9. Environment and safety in production outsourcing, purchase, and sale

Prevention of Global Warming

In accordance with the "Act on Promotion of Global Warming Countermeasures", we calculate the volume of CO₂ and other greenhouse gas emissions from all of our branches and offices including plants, laboratories and head office and submit our report to the government. The greenhouse gas emission of FY2013 was 5% more than that of the previous fiscal year. This is because our plants purchased a large volume of electrical energy, indicating increase in production activities was larger than reduction in CO₂ and greenhouse gas emission as a result of energy saving.

About a one half of the greenhouse gas of Nissan Chemical is composed of nitrous oxide (N₂O). Although N₂O can be used as laughter gas for medical purposes, most of the N₂O is generated from the nitric acid plant. Because the global warming potential (GWP) value is 310 times larger than that of CO₂, it occupies a large percentage of our greenhouse gas emissions.

Transition of greenhouse gas emissions [1,000 tons -CO₂]



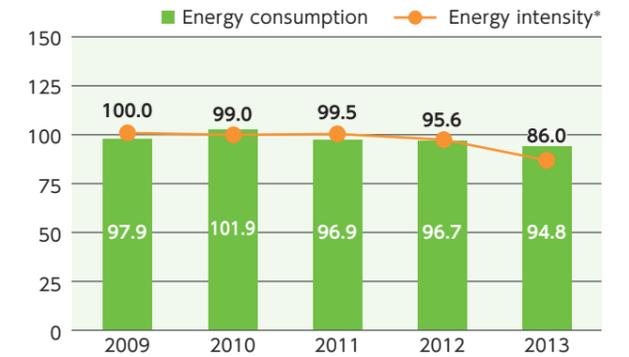
Energy Consumption, Energy Intensity

In accordance with the "Act on the Rational Use of Energy", we consolidate the total energy consumptions of all locations and report them together with the energy consumption rates. In FY2013, although the production amount increased by 3%, we managed to decrease the energy consumption by equivalent to approximately 1,900 kL of crude oil as compared to previous year.

Nissan Chemical has a wide range of product matrix from all-purpose chemical products, agrochemicals, pharmaceuticals, to functional products for electronics materials. Our product matrix has drastically changed from 1990, and it became difficult to assess the energy consumption rate based on the simple production

amount standard. Therefore we calculate it based on the sales and floor area (laboratory, etc.). As compared with the energy consumption rate of FY2009, we managed to achieve 14% improvement of the rate in FY2013.

Transition of energy consumption and intensity index [Crude oil 1,000kL]

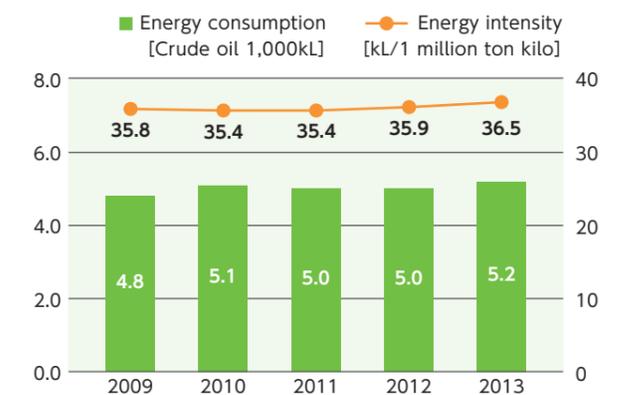


*Because the figure that has close relationship with energy consumption amount differs depending on business category, the graph shows the relative changes, taking the level of energy consumption in FY 2009 as a base of 100.

Our Actions for Saving Energy in the Logistics Site

As a consigner, Nissan Chemical is streamlining the use of energy for transportation together with Nissan Butsuryu, a subsidiary company that handles our logistics. Our energy consumption in crude oil equivalent and energy consumption rate in FY 2013 slightly deteriorated from the previous year because we had many parcel transportation and transportation efficiency was not very good. We will continue making efforts to improve energy consumption rate by promoting modal shift, updating to energy-saving vehicles and promoting green driving.

Transition of energy consumption and energy intensity in the logistics department

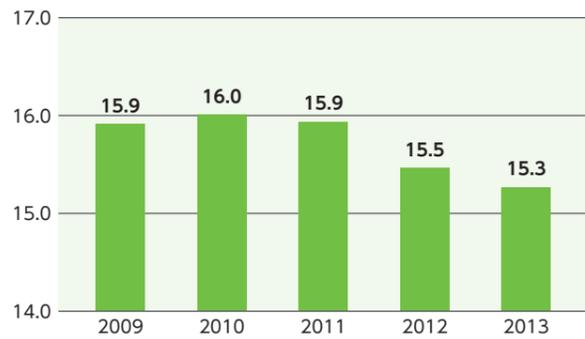


Environmental Load Reduction

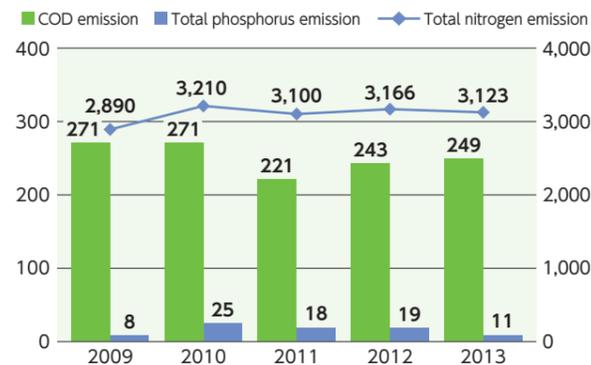
Control of Waste Water

As for the waste water, we also comply with the standard specified by the "Water Pollution Prevention Act" and the regulation levels that are determined based on the agreement with the region. While controlling the total waste water amount, we also monitor the concentration level of chemical oxygen demand (COD), total nitrogen and total phosphorus in the waste water. We have also responded to the "Water Pollution Prevention Act" amendment for prevention of groundwater pollution.

Total emission [million m³]



COD, total phosphorus, total nitrogen emission [ton]

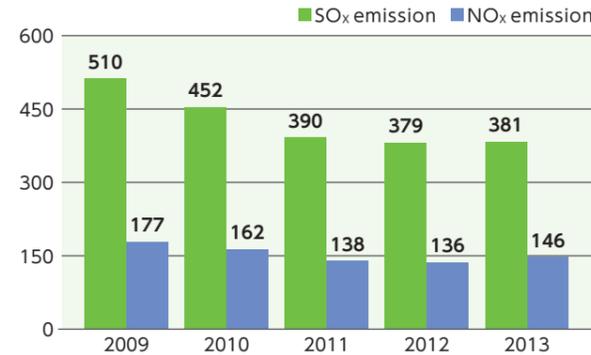


Construction work to reinforce waste water treatment facility

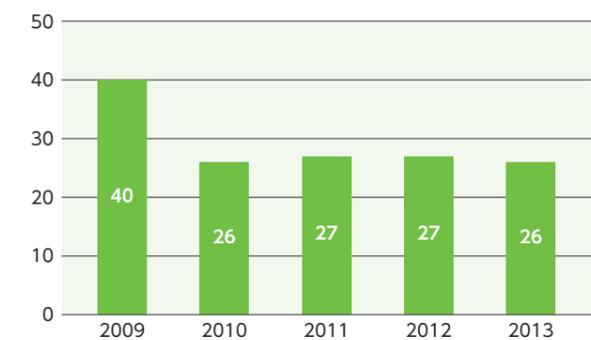
Control of Exhaust Gas

Each plant complies with the emission standards specified in the "Air Pollution Control Law" but also observes regulation values that are determined based on the agreement with the region. We try to maintain proper condition of desulfurization facility, denitrification facility and electrostatic precipitator and control emission volume of sulfur oxide (SOx), nitrogen oxide (NOx) and dust.

Transition of Sox, NOx emission [ton]



Transition of dust emission [ton]



Environmental Event Report

Because some of our laboratories are located in the residential areas or land development for housing is progressing in the neighboring areas of some plants, we give sufficient consideration in terms of noise, vibration and odor.

During FY2013, there was no environmental event that affected the surrounding areas.

Control of Chemical Substances and Emission Reduction

Confirming the Intended Use of the Substances Subject to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

The Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. issued in 2012 stipulates that companies that manufacture or import 1 ton or more of chemical substances must notify the amount of manufacturing or import, and intended use for each year. We have 31 general substances and 2 priority assessment substance that are subject to this Act. For these substances, we try to confirm consignees' intended use and report the information to the government.

Reducing Emission of Substances Specified in the Pollutant Release and Transfer Register Act (PRTR)

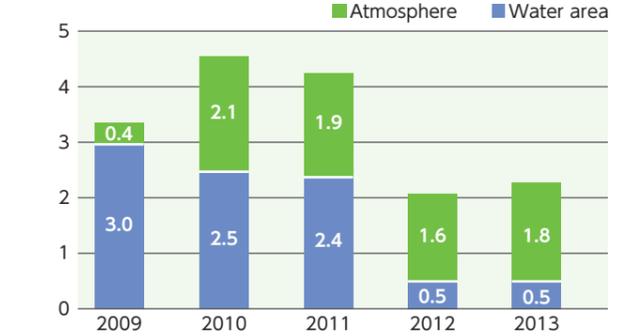
In FY 2013, we had 62 substances that are subject to notification under the "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof". The major substances are formaldehyde and normal-hexane. The former is used as reaction solvent and the latter is derived from naphtha that we use as fuel or raw material.

Reduction of emissions of substances specified in PRTR

Name of substance	Emission volume (ton)				
	2009	2010	2011	2012	2013
Formaldehyde	2.3	2.6	2.4	0.5	0.5
Normal-hexan	Exempt	1.5	1.2	1.2	1.4
Others	11.5	0.5	0.7	0.3	0.4
Total	3.4	4.6	4.3	2.0	2.3

The total emission amount is 2.3 tones: 1.8 tons to the air and 0.5 tons to the water area. Although it showed a slight increase from the previous fiscal year (2.0 tons), we are continuously working on emission control. There is no emission to the soil.

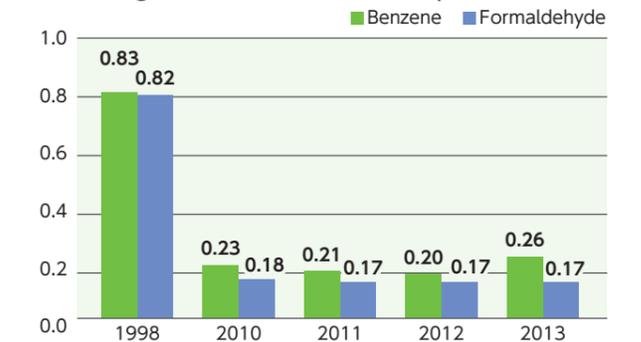
Breakdown of emissions of substances specified in PRTR [ton]



Reduce Emission of Volatile Organic Compounds (VOC)

We are continuously trying to reduce emission of volatile organic compound (VOC) that generates photochemical oxidant. There is no atmospheric emission of 1,2-dichloroethane that is used for reaction solvent since 2006 as a result of countermeasures such as sealing of equipment and introduction of combustion exhaust gas treatment. We are trying to reduce emissions of chemical substances including the ones that are not included in the PRTR Law.

Reducing emission of hazardous air pollutants [ton]



Device to remove VOC

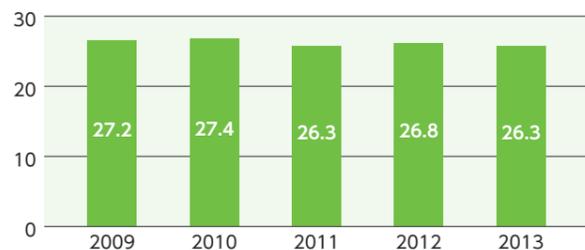
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Reduction of Disposal of Waste

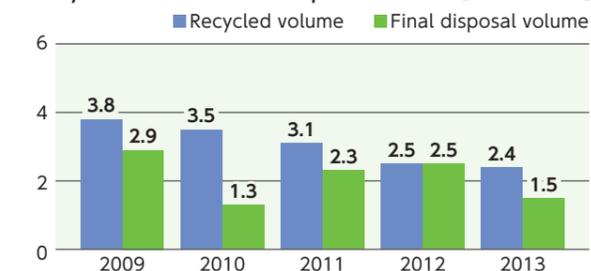
We try to reduce discharge of industrial wastes and strictly implement the appropriate disposal of the wastes. When disposal is commissioned to external contractors, we use the industrial waste manifest to check and control the transfer amount and destination of the wastes. If necessary, we go to the site and monitor the process until the final disposal.

Most of our industrial wastes are the waste water from the reaction process. Currently, the waste water is incinerated. For the solid wastes, we try to reduce the final disposal amount by recycling the generated sludge for base course materials and cement. Nagoya Plant achieved zero emission in FY2013.

Generated volume [1,000 tons]



Recycled volume/Final disposal volume [1,000 tons]



Topics

Nissan Biopark Nishi-hongo received the grand prix of the 8th RC Awards from Japan Chemical Industry Association

Toyama Factory received the grand prix of the "Responsible Care (RC) Awards" hosted by Japan Chemical Industry Association (JCIA). RC Awards are intended to commend offices, factories, sections, groups or individuals that have produced excellent achievements or contribution, in order to promote and expand responsible care activities in chemical firms. In 2013, we have seen the 8th RC Awards.

Toyama Factory improved the adjacent idle land (about 6,500 m²) as biotope space, and made it open to local residents as the park named "Nissan Biopark Nishi-hongo". In addition to the provision of a place for recreation, our company and the local community cooperated in various activities that offer opportunities to learn the importance of biodiversity, including stocking rivers with Japanese rice fish, which is endemic, the briefing sessions by former employees certified as nature commentators for elementary school students in the neighborhood, and the cooperative maintenance and management of flower fields. These activities were highly evaluated, resulting in the grand prix. We will keep promoting social contribution activities as a member of the local society.



Activities to Protect Environment and Biodiversity

Because our plants have been in operation before the establishment of the "Factory Location Act" (1973), they do not meet the ratio of greening that is required by the current laws and regulations. However, we are trying to increase the green space as much as possible by planting greens in the rest area and parking spaces of these plants.

Factory greening ratio

Sodegaura Plant	15%
Saitama Plant	15%
Toyama Plant	11%
Nagoya Plant	7%
Onoda Plant	10%

We are actively participating in the environment protection volunteer activities in the area. Since 2009, we have been continuously participating in the tree-planting event called "Umi-no-Mori (Sea Forest)" project by the Tokyo Metropolitan Government with our group company, Nissan Ryokka.



Participation in the "Umi-no-Mori (Sea Forest)" project

Response to Customers

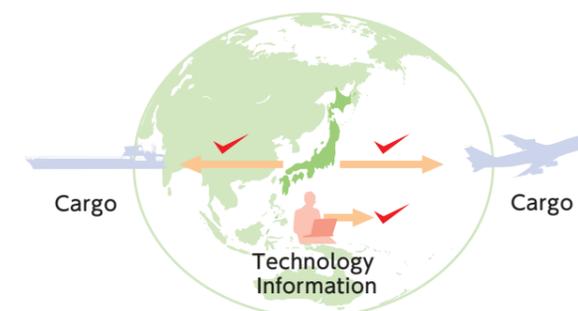
We are undertaking various activities so that the customers who use our products feel safe when using them.

Response to Product Liability(PL)

In order to secure safety of products and prevent accidents using our products, we provide highly reliable products to our customers from the research and development to manufacturing, consumption and disposal.

Security Trade Control

The importance of security trade control is increasing in the international society. We established the Compliance Program (CP) for observing the Foreign Exchange and Foreign Trade Control Law and appropriately controlling export operations, in order to contribute to maintaining international peace and security. We also established the "Security Trade Control Committee", which is directly under the Company's President. It is chaired by the Head of Environment, Safety, Quality Assurance Department and promotes compliance with export related laws and regulations and ensures operation and control of the CP.



Product Safety

A new regulation on chemicals called REACH*1 was issued in Europe in June 2007. In accordance with REACH, the industry is responsible for providing risks and toxicity information of chemicals to their users as well as collecting and registering information on the customers' intended use and handling amount of chemicals in EU. Nissan Chemical completed its pre-registration in 2008 and completed the full registration of the high export volume products in 2010. We also respond to and observe the Regulation about Classification, Labeling and Packaging (CLP) of Substances and the Mixture (Regulations concerning classification display and packaging of substances and mixed materials) that came into effect in 2009.

In order to ensure safety when using the product, we provide Safety Data Sheet (SDS) that corresponds with GHS*2 for all the chemical products and electronic material products in Japan and attaches warning labels on the containers. For the export products, we are in the process of making GHS-SDS and labels in their languages in response to the regulations of the destination countries of export.



GHS Corresponding Safety Data Sheet for products

[Explanation of terms]
 *1 REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): A new EU regulation to control chemicals for protecting human health and environment.
 *2 GHS (Globally Harmonized System of Classification and Labeling of Chemicals): A globally harmonized system concerning classification and labeling of chemicals.

Topics

AdBlue® received certificate for the JIS Mark Display System

The JIS Mark Display System is the system to place JIS Mark on the products or packages once they are certified by the organizations registered by the Japanese government. In order to receive the certificate, the products must pass a product test and strict review of quality assurance system. In April 2014, we received the certificate at our 4 manufacturing sites of AdBlue.

AdBlue is a high-grade urea solution used in the "Urea SCR (selective catalytic reduction) system", which is a type of exhaust purification technology. By spraying it on the exhaust from diesel vehicle, it will convert nitrogen oxides (NOx) into harmless nitrogen and water. We will make efforts to respond to strengthen vehicle exhaust regulations and higher demand for the quality.



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Quality Assurance

We are continuously working on quality improvement in order to provide the products that complete customers' satisfaction.

Quality Principle and Quality Targets

The Company's quality principle is "to provide products and services to meet customers' satisfaction". By setting the quality targets under this quality principle and implementing the annual schedule based on the PDCA cycle, we continuously improve our quality management

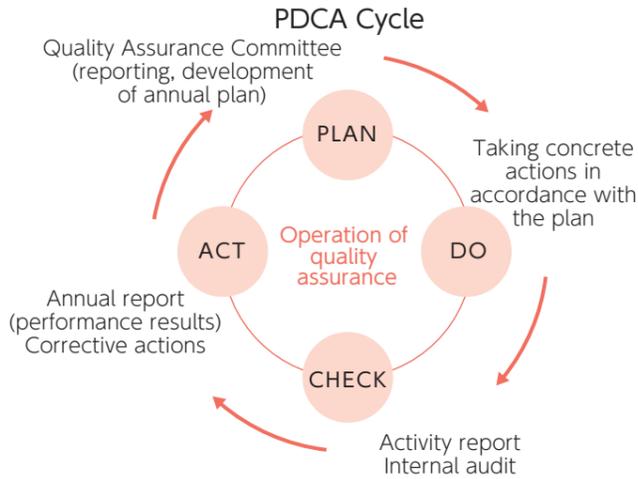
system and business operation every year. We will strengthen our responding capability to the diversifying and advancing market and further grown as a corporation that contributes to the society.

Quality Principle

"To provide products and services to meet the customers' satisfaction"

Quality Objectives (achieving the quality policy)

- Consistent quality assurance from product development to production and shipment
- QMS improvement to respond to advancing needs of customers and laws and regulations
- Corrective and preventive actions of complaints and quality troubles



Quality Management System(QMS)

The Company's quality assurance system is based on the Quality ISO in each plant and has been receiving high recognition from our customers for its excellent products and services within Japan and overseas.

We established the Quality Assurance Committee as an organization to promote quality assurance activities as well as the Responsible Care Committee,

the Committee holds regular meetings once a year.

At the Committee meetings, activity results, audit results and complaints information and their corrective actions' status of the year for the Company and affiliates are reported to the members, and the activity policies, etc. concerning quality assurance for the next fiscal year are discussed.

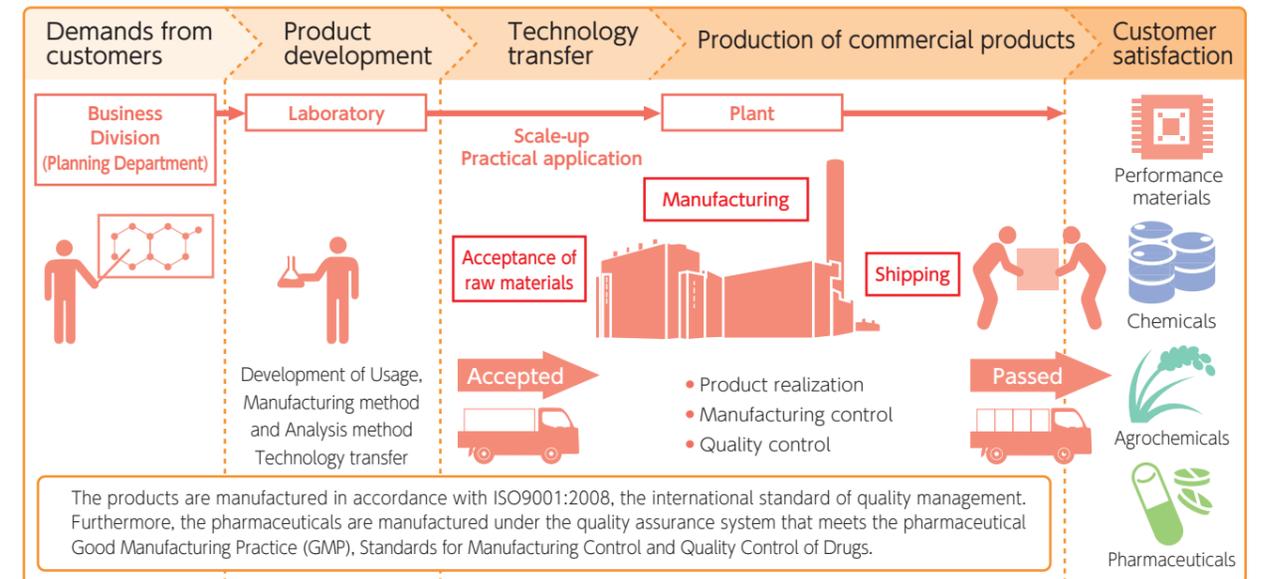
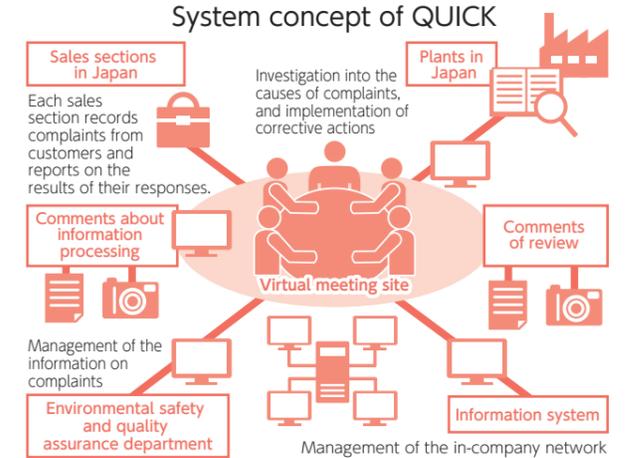
Quality Assurance Promotion System Organizational Chart



Quality Assurance Activities

By applying quality management system such as ISO9001, we conduct quality assurance activities that respond to laws, regulations and demands from the customers throughout the product's life cycle from product development, commercialization, to the use by the customers.

In order to promptly collect voices of the customers concerning the products (complaints, product liability accident information, etc.), evaluate them, and take corrective actions if necessary, we also have the Quality Information and Corrective Key (QUICK) System, a virtual meeting place on the intranet.



Acquisition of the Certification of a Quality Management System

All of our Company's plant (5 plants) acquired the certificate of ISO9001, the international standard for quality management system, and have been maintaining and updating the certificate. By utilizing the management system, we are continuously making efforts to achieve stable quality and improve our products and services.

Plant	Year of acquisition	Certification body	Certification number
Sodegaura Plant	(June 1994)	Japan Chemical Quality Assurance Ltd.	JCQA-0007
Toyama Plant	(July 1994)	Same as above.	JCQA-0008
Nagoya Plant	(July 1994)	Same as above.	JCQA-0009
Onoda Plant	(July 1994)	Same as above.	JCQA-0012
Saitama Plant	(July 1996)	Same as above.	JCQA-0141

Message

"Aiming at further improvement of management systems"

Environment Safety and Quality Assurance Department, Quality Assurance Group Leader, **Eiichi Oya**

The work of the Quality Assurance Group is to control and promote the quality assurance activities of the entire Company. Each of our plants has its own quality goals and continuously improves the processes. Our products are used by many customers in various fields. The quality must meet the expectation of our customers. In order to develop the products that respond to the advancing demand from the customers and laws/regulations and continue providing them to the market, we promote the quality assurance activities based on the Quality ISO.



Friendly Working Environment

Our Company has various systems/measures in place for our employees to achieve highly productive work performance and have good work and life balance.

The Company expands the number of half-day annual leaves and implements the 5-day planned annual leave system. As a result, the recent annual leave acquisition rate is high at more than 70%.

Systems, etc. for Work and Life Balance

Names of system	Content
Childcare leave	If certain requirements are fulfilled, the employee can take childcare leave until the child becomes "one and half years old" or until "the first April 20 after the child reaches one year old".
Spouse child birth/ Childcare support leave	The male employee whose spouse gave birth is allowed to take up to 7 leave days (paid) within 8weeks from the child's birth.
Nursing leave	The employee is allowed to take nursing leave to take care of his/her child (children) and spouse up to 20 days per year from the accumulated expired annual leave days.
Short working hours	The employee is allowed to make their designated working hours shorter, up to 2 hours, at the unit of 30 minutes, to take care of child (children) until they reach the 4th grade.
Half a day leave	The employee is allowed to take half a day off as annual leave up to 30 times a year.
Planned annual leave	The Company recommends the employees to take annual leave of 2 days as company-wide planned leave and 3 days as individually planned leave.
Refresh leave	Within 1 year from the time when an employee reaches 50 years old, the company provides 10 consecutive days leave (paid) with financial support.
Re-employment refresh leave	Within 1 month before or after an employee reaches 60 years old, the company provides 3consecutive days leave (paid).

Labor-management Relationship based on Straightforward Communication and Mutual Understanding

As good business partners, Nissan Chemical and Nissan Chemical Labor Union collaboratively solve issues such as work-life balance based on good labor-management relationships that had been built in the past.

Respect for Diverse Human Resources, Individuality and Views

At the Company, diverse human resources are playing active roles in wide range of fields, regardless of their age, gender and nationality.

Contents	Unit	Figures of 2013
Full time employee	Male (persons)	1,543
	Female (persons)	164
New employee	Male (persons)	34
	Female (persons)	7
Re-employment of retired employees	Total (persons)	66
Re-employment rate	(%)	63
Female staff rate	(%)	9.6
Female managers	Number of employees, Managers (%)	9 2.0
Employment of people with disabilities	Number of employees, Employment rate (%)	33 2.2
Employees obtaining Child Care Leave	Male (persons)	0
	Female (persons)	10
Shorter working hours to raise children	Male (persons)	0
	Female (persons)	7
Average monthly overtime	(Time)	18
Annual leave acquisition rate	(%)	76.9
Leaving job within 3 years after employment	(Number of employees)	1
	(%)	3.1



Labor-management meeting for exchange of ideas

Employees who Play Active Part Globally.

Many employees are stationed at our major subsidiaries overseas and work actively together with the local staff.

Currently, there are 28 employees who are engaged in sales, research and financial administration in five countries.



Cross-Cultural Communication

The company is accelerating overseas expansion, recognizing that the overseas market, mainly newly emerging countries, will take the lead in the future growth. There will be more number of employees who will be dispatched to our overseas offices or will go on business trips, and it is our urgent task to develop human resources who can understand cultural background and can have communication in the true sense. In order to respond to this task, our Company Group offers "English Conversation Training System" and "Learning Language Overseas System" with a focus on mindset education.

The goals of the English Conversation Training System are not only to learn language but also to learn overseas business manner and culture to be a person who can accurately convey their thoughts and work with diverse people. We also offer variety of programs in accordance with the level of the participants, such as group lessons by Japanese teachers and one-on-one lessons by native teachers, to enable the students to maintain high motivation and continue their study.



Scene of "English Conversation Training System"

The Learning Language Overseas System incorporates homestay at local families so that the participants can acquire mindset that is important for working with diverse people. The participants continue making communications voluntarily while struggling with the wall of language, in the actual encounter with different culture. The program is producing clear growth of each participant.

Topics

Introduction of our overseas subsidiary (NCK)

NCK is located in Pyeongtaek city (80km south of Seoul) in Gyeonggi Province, South Korea and is researching, manufacturing and selling SUNEVER and BARC. The products are sold not only in South Korea but also exported to Asia and North America.

The number of employees is about 70, out of which 9 are Japanese staff who are posted there. They are engaged in sale, research, or work at the plant and try to carry out work smoothly by close communication with local staff.

In order to respond to the increasing demand, the manufacturing plant was upgraded this year. We will continue carrying out business activities to make NCK a company that contributes to the world as a major site of the functional materials business.



Communication with the Society

We carry out social contribution through achievement activities as well as carry out various activities to have better communication with the society and the communities.

Social Contribution Activities "Social Welfare Fund Raising"

As part of the local contribution activities, our Company is conducting "Social Welfare Fund Raising" activities since 1997. The employees make a certain amount of contribution to the reserve funds every month, and the Company donates the matching amount. The funds will be used for the social welfare of the local communities. Specifically, we conduct the activities through "Support Fund for Social Welfare Organizations", "Support Fund for Environmental Protection and Beautification of Environment", etc. at the plant, laboratory, or head office or branch, or jointly in some areas.

In FY 2013, we donated to 40 organizations such as Council of Social Welfare and welfare facilities, in 16 regions.



Provision of welfare equipment to the Fujimidai Kikoe to Kotobanoh Kyoshitsu (Fujimidai listening and language class)



Provision of welfare equipment in Toyama district

Support for the Next Generation

Internship

The Company offers internship to the college and high school students in order to raise job consciousness and support building their career as well as to deepen their understanding on the Company.

In 2013, 12 students experienced testing work and observed manufacturing site at our laboratory and plant. We hope they will utilize this experience and play active role after their education.



Testing work experience at Sodegaura Plant

Off-Site Class, Work Experience

The Chemical Research Laboratories offered off-site chemical experiment classes at nearby elementary schools as part of their support activities for science education. The Biological Research Laboratories invited students from junior high schools in the city to experience the work of the Laboratories.



Let's make micro capsule (Narashinodai Daiichi Elementary School)



Dry ice magic (Tsuboi Elementary School)

Dialogue with Community

Every year, we offer plant tours and briefing meeting to the local community people and nearby schools. Especially at the plants, we explain our activities on disaster prevention and environment to enhance their understanding that the plant is safe and secure.

We are also proactively involved with the Responsible Care (RC) Community Dialogue Meeting, hosted by the Japan Chemical Industry Association Responsible Care Committee, as a lead company. We are making efforts to maintain good communication with the residents and administration.

In FY 2013, we participated in the Responsible Care Community Dialogue Meeting in Toyama/Takaoka district where Toyama Plant is located and Yamaguchi-nishi district where Onoda Plant is located.



Plant tours of the residents in the area (Nagoya Plant)



Participation in the RC Community Dialogue Meeting (Toyama/Takaoka District)

Community Beautification Activities

We proactively carry out beautification activities in the community, in accordance with the characteristics of the area where the plant is located.

At Sodegaura, Saitama and Nagoya Plants, we cleaned the public roads around the plants. Onoda Plant plants flowers along the road in front of the premise in collaboration with local community people in spring and fall, as an action to fill the Seimi Street with full of flowers. Furthermore, Toyama Plant works on cleaning and beautification of the nearby JR Takayama-Line, Hayahoshi Station.



Surrounding area beautification activity (Saitama Plant)



Beautification activities of JR Takayama-Line, Hayahoshi Station (Toyama Plant)



Greening activities (Onoda Plant)

Products that Contribute to the Society

CSR Management

Responsible Care Activities

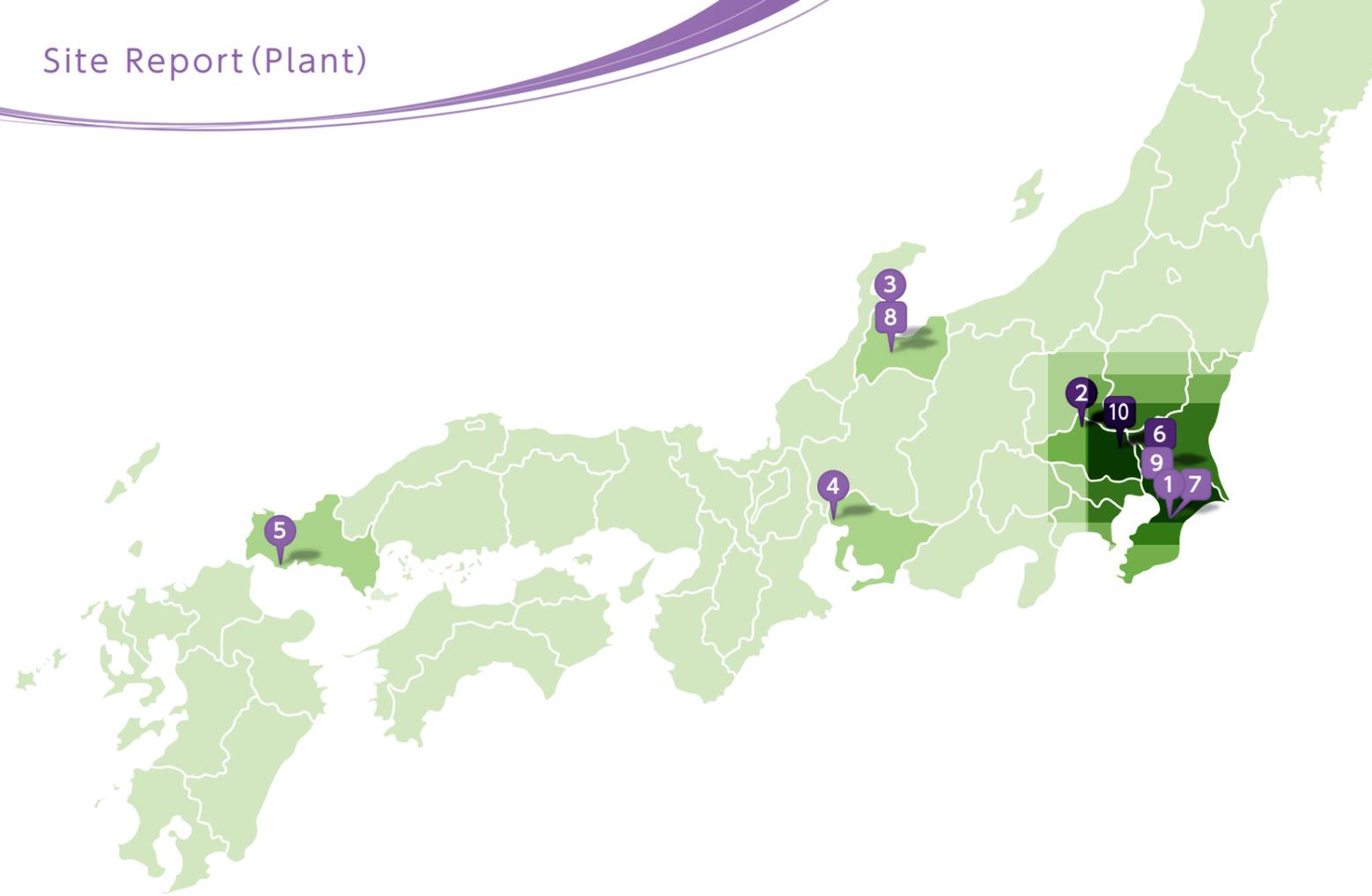
Together with our Stakeholders - Relationships with Consumers and Clients -

Together with our Stakeholders - Employees -

Communication with the Society

Site Report

ISO 26000 Core Subjects Comparison Table



2 Saitama Plant

Overview of the Plant

- Location 235-1, Aza Nishidai, Oaza Jimbohara-machi, Kamisato-machi, Kodama-gun, Saitama
- Plant manager Associate Executive Officer, Naoki Matsumoto
- Number of employees 44
- Major production items

[Rice-paddy herbicide] Gekko granular agent, Comet granular agent, Twin-star granular agent, Ginga granular agent, Sun punch granular agent, Spark star granular agent, Sirius-exa granular agent, etc.
 [Pesticide] Dazuban granular agent, Rugby MC granular agent, Gazette granular agent, Telstar hydrating agent, Elsun hydrating agent, etc.
 [Pesticide/Fungicide] Beam prince granular agent, Oryzmate prince granular agent, etc.
 [Fungicide] Oracle granular hydrating agent, Horizon DF, Storobie DF, etc.
 [Herbicide for overseas market] Sirius hydrating agent (China, Russia, Venezuela, South Korea, etc.)



Our actions for Responsible Care

The Saitama Plant contributes to stable provision of safe and secure food when it manufactures agrochemical products. At the same time, it proactively works on environment protection and improvement. Furthermore, by using the technique of safe and health management system, we are promoting protection of rich natural environment and regional environment and creation of safe, hygienic, open and healthy workplace.

Recent Responsible Care related topics

- Safety and health education for all contractors [May 2013]
- Conversion of boiler fuel from kerosene to LPG in order to reduce CO₂ emission [July 2013]
- Ladder truck drill at the new 4-story grinding mill [August 2013]
- Clearing around the plant [October 2013]
- Fire drill [November 2013]



Head of Environment and Safety Section, Takahiro Makabe

3 Toyama Plant

Overview of the Plant

- Location 635, Sasakura, Fuchu-machi Toyama, Toyama
- Plant manager Executive Officer, Takeshi Iwata
- Number of employees 399
- Major production items

[Basic chemicals] Ammonia and its derivative, Nitric acid and its derivative, Sulfuric acid and its derivative, Urea and urea aqueous solution, Melamine and its derivative, etc.
 [High purity products] High purity ammonia, nitric acid, sulfuric acid, high purity nitrogen monoxide
 [Environmental chemicals] Cyanuric acid, Chlorinated isocyanuric ester
 [Inorganic materials] DS abrasive agent (abrasive agent for compound semiconductor), SNOWTEX, alumina sol
 [Performance materials] Melamine cyanurate
 [Electronic materials] BARC (Bottom anti-reflective coating for semi-conductor), Polyimide (liquid crystal aligning agent)



Our actions for Responsible Care

The Toyama Plant handles many hazardous substances and high-pressure gas. In order to prevent environmental pollution caused by accidents/disasters, the entire Plant is making efforts on safety education and training as well as strengthening the maintenance systems of facilities. Furthermore, in order to reduce environmental load on the water area and the air, we are making sure to operate ISO 14001, the environment management system that we acquired in March 2003, for environment preservation. We created a biotope on the factory site in the premise and protect biodiversity, and we also value communication with local community members through collaborative actions.

Recent Responsible Care related topics

- Emergency drill at naphtha handling facility for transport [June 2013]
- The eighth gathering for private fire brigade firefighting techniques [August, 2013]
- Plant-wide disaster prevention drill [November 2013]
- Disaster prevention lecture by an external consultant [February 2014]



Head of Environment and Safety Section, Isamu Hinata

1 Sodegaura Plant

Overview of the Plant

- Location 11-1, Kitasode, Sodegaura, Chiba, 12-17, Goiminamikaigan, Ichihara, Chiba (Goi Works)
- Plant manager Executive Officer, Yuji Nishida
- Number of employees 169
- Major production items

[Inorganic colloid materials] SNOWTEX (colloidal silica sol), ORGANOSOL (organo silica sol), ALUMINASOL (colloidal alumina), CELNAX (inorganic conductive materials), SUNCOLLOID (high refractive index sol)
 [Display materials] SUNEVER (polyimide for LCD), NHC (inorganic coating materials)



Our actions for Responsible Care

The Sodegaura Plant is located in the petrochemical complex in Chiba. There are two manufacturing sites in the complex. It is a development-oriented plant that has the functions of both development and manufacturing of functional materials products.
 The Plant's critical challenges in terms of Responsible Care are "Safety (prevention of serious accidents and disaster at work)" and "Waste water control". For the "Safety", we try to prevent disaster from happening by extracting risk factors and taking countermeasures through actions to notice incidence and risk assessment. For the "Waste water control", we try to strengthen our responses at the time of waste water abnormality and continuously conducting actions for environmental protection.

Recent Responsible Care related topics

- Plant-wide 5S activities [October 2013] 5S [Sorting, Setting-in-order, Shinning, Standardizing, Sustaining the Discipline]
- Earthquake disaster prevention drill [November 2013]



Head of Environment and Safety Section, Shinichi Kurosawa

4 Nagoya Plant

Overview of the Plant

- Location 7, Tsukiji-cho, Minato-ku, Nagoya, Aichi
- Plant Manger Hideki Yanagi
- Number of employees 36
- Major production items
[Basic chemicals] Sulfuric acid, Acid sodium sulfite solution, Urea aqueous solution
[High purity products] High purity sulfuric acid

Recent Responsible Care related topics

- Fire drill [July, August 2013]
- Oil leakage drill as part of an effort to strengthen drainage control [November 2013]
- Training simulating an accident during transportation, together with Nissan Butsuryu [March 2014]
- Integrated disaster prevention and evacuation drill (March 2014)



Head of Environment and Safety Section, Yasuhiro Kashio



Our actions for Responsible Care

The Nagoya Plant manufactures basic chemical products. In order to minimize impact on the global environment, all our staff members participate in the activities to achieve the purposes of the environmental principles, including "appropriate control of air pollutants and water pollutants", "reduction in industrial wastes and enhance recycle rate (challenge to zero emission)", and "promotion of energy saving". As a result of the efforts to reduce industrial wastes and recycling, the recycling rate has reached 100%. We also continuously conduct mutual awareness raising activities and provide various training programs with a critical theme of safe and stable operation.

5 Onoda Plant

Overview of the Plant

- Location 6903-1, Oaza onoda, Sanyo-Onoda, Yamaguchi
- Plant Manager Executive Officer, Masataka Hatanaka
- Number of employees 224
- Major production items
[Agrochemical intermediates] Elsun (pesticide), TARGA, SIRIUS, PERMIT, ALTAIR(herbicide), SUNMITE (insecticide/miticide), LEIMAY (fungicide), STARMITE(miticide)
[Performance materials] TEPIC-G(hardening agent for polyester powder coating material), TEPIC-S (LED sealant, solder mask ink), phenylphosphonic acid
[Pharmaceutical] LIVALO pharmaceutical ingredient (anti-cholesterol agent), Fluralaner (veterinary pharmaceutical)

Recent Responsible Care related topics

- Safety workshop for all contractors [July 2013]
- Emergency resuscitator lecture [October 2013]
- Safety lecture by an external consultant [October 2013]
- Integrated disaster prevention and evacuation drill [November 2013]



Head of Environment and Safety Section, Shinsuke Yagi



Our actions for Responsible Care

At the Onoda Plant, life science products (pharmaceuticals and agrochemicals, etc.) and organic fine chemicals are manufactured. In order to reduce environmental load, we are vigorously promoting "appropriate handling and reduction of greenhouse gas, environmental load substances", "prevention of leakage of odor", "saving resources and saving energy". We are making efforts to prevent environmental pollution due to accidents/disasters and also place safety and stable operation as the top priority of the environment/safety activities in order to protect safety and health of the local community people and our employees.
In FY2014, we will strengthen the environmental protection initiative by reinforcing the activated sludge facility.

Materials Research Laboratories

■ Head of Laboratory Executive Officer, Katsuaki Miyaji

6 Materials Research Laboratories (Funabashi)

Overview of the Laboratories

- Location 488-6, Suzumi-cho, Funabashi, Chiba
- Number of employees 123
- Major research contents

Research and development of materials for liquid-crystal display and new performance materials

Recent Responsible Care related topics

- Public solicitation and presentation of the slogan [July 2013]
- Conducted group safety activities meeting for young researchers (in collaboration with Chemical Research Laboratories) [October 2013]
- Fire drills [January 2014]
- Development and publication of Disaster Prevention Manual [February 2014]

Our actions for Responsible Care

The Materials Research Laboratories (Funabashi) work on safety activities in collaboration with the Toyama district. Because there are many young researchers, we focus on the training aiming to enhance safety awareness. Recent activities include extraction of the examples from labor disasters and notice incidence reports by young employees and regular risk prediction trainings for all. Furthermore, since laws for handling chemical substances are becoming more and more stringent, we carry out appropriate management of chemical substances by encouraging all staff to participate in the patrol, in order to ensure through education of handling and operation rules.



7 Materials Research Laboratories (Sodegaura)

Overview of the Laboratories

- Location 11-1, Kitasode, Sodegaura, Chiba
- Number of employees 18
- Major research contents

Research and development of inorganic colloid products such as silica sol using our superfine particle control technology.

Recent Responsible Care related topics

- Concurrent 5S activities [in collaboration with Sodegaura Plant, October 2013]
- Earthquake drill [in collaboration with Sodegaura Plant, November 2013]

Our actions for Responsible Care

The Materials Research Laboratories(Sodegaura) are located next to the Sodegaura Plant, and in collaboration with the Plant, the Laboratories try to maintain and improve work environment as well as enhance safety awareness. For example, sharing information of near miss and risks, danger prediction training, 5S activities and disaster drills are carried out together with the Plant. The Laboratories also try hard to keep everyone informed about safety education and compliance with laws and ordinance through safety meeting every month and OJT on a daily basis.



8 Materials Research Laboratories (Toyama)

Overview of the Laboratories

- Location 635, Sasakura, Fuchu-machi, Toyama, Toyama
- Number of employees 40
- Major research contents

Research and development of materials for semi-conductor R&D of the materials for liquid crystal displays and new electronic materials

Recent Responsible Care related topics

- Participation firefighting techniques gathering [August 2013]
- Conducted a high-pressure gas lecture by the supplier [November 2013]
- Evacuation drill [March 2014]

Our actions for Responsible Care

The Materials Research laboratory (Toyama) cooperates with Toyama Plant and the research laboratories in the Funabashi district in safety activities. Recently, we have replaced all lamps in clean rooms with LED lamps, and participated in the fire-fighting operation event together with the staff of Toyama Plant from last year.
Since a variety of chemicals, gases, etc. are daily used, we emphasize the education and training about how to handle them and operation rules. Obtaining the latest information of the law and regulations, we conduct thoroughgoing appropriate management of chemicals, by establishing new chemicals archives, and so on.



9 Chemical Research Laboratories

Overview of the Laboratories

- Location 10-1, Tsuboi-Nishi, 2-chome, Funabashi, Chiba
- Head of Laboratory Executive Officer, Jun-ichi Watanabe
- Number of employees 165
- Major research contents

Research to discover, formulate and develop agrochemicals, research to discover and develop pharmaceuticals, synthesizing and process development of pharmaceutical intermediate and drug substance, research and development of organic performance materials research and development of organic synthetic technology, and material analysis.



Our actions for Responsible Care

Chemical Research Laboratories are our Company's central research institution, and its core technology is organic synthesis. It is especially making efforts in safe experiment and disaster prevention. By carrying out 4S, sharing information of near miss and risks, and danger prediction training, it is aiming to enhance safety awareness among the employees and eliminate occupational accidents. The surrounding area of the Laboratories is a residential area. Therefore, the Laboratories make sure to follow the laws and ordinance concerning management of waste water, odor, noise and waste and promote environmental preservation as a corporation that is trusted by the local society.

Recent Responsible Care related topics

- Certified as a cooperative office for first aid in Funabashi City. [May 2013]
- Group reporting session about safety activities by young researchers (in collaboration with Material Science Laboratory) [October 2013]
- Fire and evacuation drill [October 2013]
- Held "the briefing session on the law regarding chemical substances" by in-company lecturers. [December 2013]

10 Biological Research Laboratories

Overview of the Laboratories

- Location 1470, Shiraoka, Shiraoka, Saitama
- Head of Laboratory Associate Executive Officer, Toshiro Miyake
- Number of employees 101
- Major research contents

Biological evaluation researches for creating agrichemicals and pharmaceutical compounds and putting them into practical use
Research and development of new materials for medical technology



Our actions for Responsible Care

The Biological Research Laboratories are the Company's major institute for "biological evaluation". In order to safe conduct tests, we provide training programs including how to handle experimental organism and also conduct 4S and actions to take notice to enhance awareness on safety among the employees. In order to strengthen the management system for appropriate animal experiments, we established a working group on animals that leads the actions. Currently, we are updating buildings. We regularly patrol the construction site and take safety measures and preventive actions to prevent accidents among the employees and contractors.

Recent Responsible Care related topics

- Reduction in industrial wastes by changing from alkaline batteries to rechargeable nickel hydride batteries
- Held "AED lecture" [October 2013]
- Disaster prevention drill in anticipation for earthquakes [December 2013]

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Products that Contribute to the Society

CSR Management

Responsible Care Activities

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Communication with the Society

Site Report

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Nissan Chemical Industries, Ltd.
is a member of the "Responsible Care Committee"
of Japan Chemical Industries Association (JCIA).



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