

Through the setting of high and unique standards alongside the implementation of a number of strategies, the Nitto Denko Group has improved its local and global environmental protection management.

Concept of Environmental Management

In conformity with our corporate vision, voluntary environmental action plans and other environmental regulations, the Nitto Denko Group approaches global environmental conservation with two goals in mind; the "reduction of environmental load associated with business activities" and the "development of business conducive to environmental conservation".

The Nitto Denko Group uses our own environmental management index as a means of assessing and ensuring that the environmental load resulting from our business activities is minimized where possible.

Additionally we promote the development and provision of products and functional parts to our customers which support an overall reduction in the creation of environmental load.

Environmental Management Index

The Nitto Denko Group is implementing environmental load reduction activities aimed primarily at the prevention of global warming. An example of this has been the establishment of a unique environmental efficiency index. This index incorporates corresponding target values in a way that allows us to better manage our efforts at reducing environmental load.

The environmental management index (environmental load value-added productivity) has been set based on the added value*1 created from corporate activities divided by environmental load*2. Through using the fiscal 2005 environmental load level as a benchmark, we aim to double our environmental efficiency by fiscal 2015.

In fiscal 2009, both product sales and environmental





load increases were almost equivalent to the previous year, but due to an increase in material costs a decrease in added value was experienced. This decrease resulted in an overall environmental load value-added productivity result that approximated the result obtained in the 2005 fiscal year, despite improvements in the environmental management index.

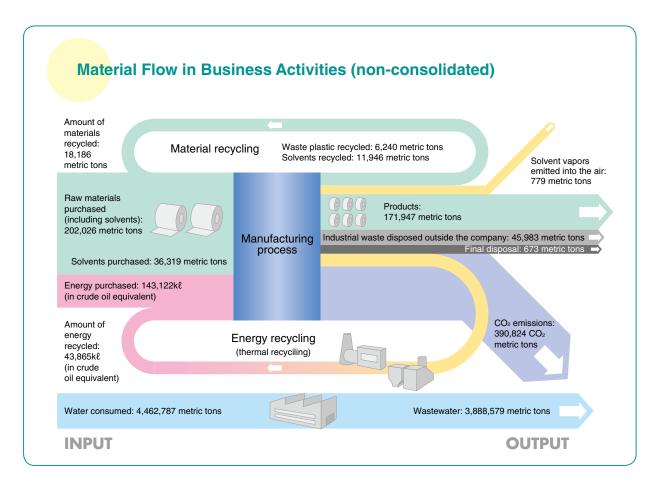
In the future, we will implement sweeping measures to reduce the environmental load generated from production, whilst continuing to increase our efforts to create high value-added products. This will be achieved through not only developing products which are manufactured without relying on using organic solvents and which minimize the generation of industrial waste, but also through improving the manufacturing methods used for such new products.



Environmental Management Index (consolidated)					
	Fiscal 2005	Fiscal 2006	Fiscal 2007	Fiscal 2008	Fiscal 2009
Index	100	98	116	111	101

- *1: Value calculated from sales subtracting material costs, outside order expenses and energy costs
- *2: A unique unit utilized by the Nitto Denko Group, indicating environmental load into which we convert energy purchased, industrial waste generated, VOC purchased and the like through the use of a coefficient (unit: ton-EI)

Regarding the environmental self-acting program: http://www.nitto.com/company/environment/env_01.html As to the position of acquiring ISO14001: http://www.nitto.com/company/environment/env_02.html





Environmental Performance Data Aiming towards preventing global warming

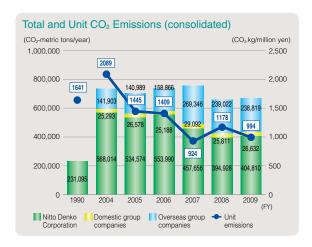
The Nitto Denko Group collectively is aiming to prevent global warming.

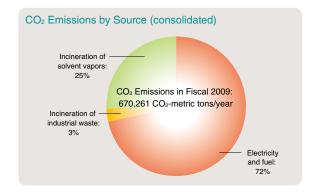
In order to reduce CO_2 associated with our business activities, we are taking steps to improve our energy efficiency, to conserve energy wherever possible and to switch to fuels which produce less CO_2 emissions.

Our unit CO₂ emissions (CO₂ emissions per 1 million yen of production output) throughout fiscal 2009 improved 12% in comparison to fiscal 2008 and total CO₂ emissions reduced 4.5% (approximately 30,000

Energy Purchased and Unit Energy Consumption (consolidated) (kl/vear in crude oil equivalent) 300,000 600 523 575 250,000 500 78,497 383 375 400 200,000 347 316 82.298 48.763 48.807 45,163 150,000 300 100,000 200 50,000 100 81,032 1990 2004 2005 2006 2007 2008 2009 (FY) Nitto Denko Domestic group Overseas group consumption companie

metric tons) compared to fiscal 2005. The most significant improvements made stemmed from the reduction of CO₂ emissions as a result of energy savings throughout the years.





Improvement in Energy Efficiency in the Drying Process of Coating Machines

In producing adhesive tapes, a large amount of energy is used in order to dry adhesive components. Thermal energy is required to oven dry off the adhesive component coated on to the film. Two kinds of adhesive components (solvent-based and emulsion) are used in our products. In drying solvent-based adhesive components, combustible gas is generated. This gas concentration within the oven increases creating the possible risk of an explosion. In contrast, our products using emulsion do not create any risk of explosion. We conducted experiments using a

coating machine which produces emulsion adhesive tapes. The results indicated that we could reduce energy usage by 40% whilst maintaining product quality.

In the future we will continue to introduce any positive advancement to our emulsion adhesive tape operations whilst also measuring product quality. Regarding solvent-based adhesive components and their practical applications, we will continue to conduct experiments focusing on safer usage.

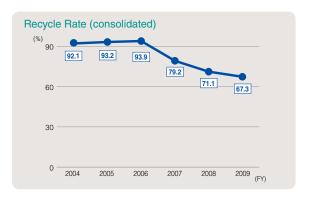
Environmental Performance Data Effective utilization of resources

Most of the industrial waste generated from production activity within the Nitto Denko Group consists of solid material and liquid waste. The solid waste consists of log roll edges, off cuts from the production process whilst the liquid waste is comprised of etching and iodine waste and the like. Solid waste is created due to the production processes involved in making adhesive tapes and optical products. Waste liquid is generated from the production of circuit boards.

Domestically in Japan, we have been recycling both industrial thermal and material waste since fiscal 1998, with Nitto Denko Corporation (nonconsolidated) accomplishing a recycling rate of 98% in fiscal 2003 and the domestic Group accomplishing a recycling rate of 98% in fiscal 2006. Both of these recycling rate levels continue to be maintained. Meanwhile with our overseas Group companies, raising recycling rates has proven difficult as the circumstances surrounding recycling processes differ from country to country.

On the other hand, the object of industrial waste reduction activities is to significantly reduce the amount of industrial waste created. Adopting and implementing approaches that result in the efficient use of industrial waste is very important. Initially it is





important to consider that the generation of industrial waste stems from the inefficient use of resources. Through determining the source of any industrial waste, we are able to implement strategies aimed at rectifying the situation. Such strategies will result in improved resource efficiency, a reduction in the generation of industrial waste and environmental load and improved savings as a result of time saved. From now on we will focus on further reducing the amount of industrial waste created.

Approaches to Converting the Industrial Waste into Valuable Resources

One of industrial wastes generated from the Toyohashi Plant are waste adhesive compounds. Waste liquids and solvents are able to be sold as valuable resources because they are able to be recycled as fuels. However, the waste adhesive compounds turns into gel with their viscosity increasing over time. Therefore recycling them into useable sources of fuel is difficult. It is for this reason that they are treated as industrial waste. We are now considering the possibility of how we can prevent adhesive compounds from gelling so that we may be able to recycle them and also sell

them on.

There are many types of waste adhesive compounds. Given this it is necessary to select anti-gelling agents which will match the composition of each adhesive compound. We have completed an experimental evaluation of each compound which has provided positive results. From now on we will continue to expand our research and encourage other plants to also engage in research activities that may lead to improvements in our overall management of waste.



Environmental Performance Data Reduction of organic solvent

The Nitto Denko Group aims to reduce organic solvent used as a means of avoiding the possibility of hazardous explosions as well as reducing environmental load. Due to the known negative effects of solvent chemicals to humans, we need to be prepared for a time when such solvents will not be used.

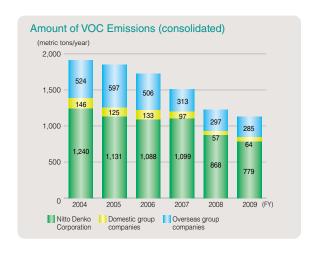
We will continue to develop our manufacturing technologies of solvent free products through drawing on our previous experiences and will look towards any worthwhile innovations being adopted throughout the whole group. Apart from this we will continue to follow up on customer and market

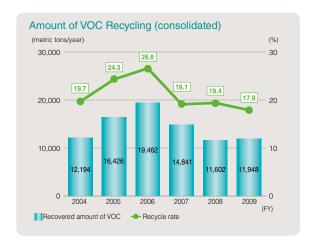
requests as a means of informing future production.

As a leading manufacturer of adhesive tapes, we will continue to produce products which positively contribute to our society and the global environment.

The Nitto Denko Group has since the 1990's taken cornerstone measures to prevent air pollution being generated from organic solvents. One such measure involves the installation of oxidizing equipment (incinerating equipment used for solvent gas) throughout our plants. As a result, the amount of organic solvent which is discharged into the air has been reduced to 1,128 metric tons in fiscal 2009. We have also installed solvent recovery units which allow us utilize resources more effectively through the reuse of organic solvent.

Previous data regarding the environment: http://www.nitto.com/company/environment/pdf/env_data_2005-2009.pdf





Receiving the Reduction of VOC Award from the Taiwan Government

Nitto Denko (Taiwan) Corporation participated in the "VOC reduction campaign in the southern Yunchia region" which has been promoted by the Industrial Development Bureau, Ministry of Economic Affairs since October 2008. Nitto Denko (Taiwan) has worked hard to reduce

VOC under the technical guidance from experts. The award received was in recognition of our achievements in this area. Nitto Denko (Taiwan) was one of five corporations which were considered the most successful amongst the 120 participating corporations.



Left: Masato Yoshikawa (President) receiving a plaque

Contributing to the Environment

Each Nitto Denko Group company has been involved in different positive efforts which have been aimed at working in harmony with the environment and contributing towards the creation of more sustainable societies.

The following are some examples of initiatives undertaken throughout fiscal 2009.

Onomichi Plant Receives an "Eco Commutation" Award

The Nitto Denko Onomichi Plant has promoted "Eco Commutation" by running eco friendly buses regularly since 2007. With our efforts recognized, we became certified and registered as the first "Excellent Eco-Commuting Workplace" from The Foundation for Promoting Personal Mobility and Ecological Transportation ("Eco-Mo Foundation") in July 2009.

Furthermore, for CO₂ reduction, the easing of traffic congestion in the region and a reduction of risks of traffic accidents, we also received the highly recognized Minister of Land, Infrastructure, Transport and Tourism Award. This award is given in recognition of environmental protection excellence in the area of public transport by the Minister of Land, Infrastructure, Transport and Tourism in 2009.



Second left: Yukio Nagira (President)
Third left: Mikazuki (Parliamentary Secretary for Land, Infrastructure, Transport and Tourism)

Holding of UNEP World Environment Photographic Exhibition at Some Group Companies

In fiscal 2009 the Nitto Denko Group implemented an employee environmental awareness campaign called "Green Design Action". Further to this, on the heels of "the light dimming campaign", we held an UNEP (United Nations Environmental Programme) World Environment Photographic Exhibition: Focus on Your World at bases and group companies both domestically and overseas. This exhibition served to raise environmental awareness amongst all Nitto Denko Group employees globally. In order to further boost awareness of environmental problems, we will continue to promote this campaign in all our workplaces.





For details, please visit the website of Nitto Denko. http://www.nitto.com/company/contribute/gda_02.html

Hydranautics is the First Membrane Manufacturer to Join The Climate Registry

Hydranautics has become the first US-based membrane manufacturer to join The Climate Registry. The Climate Registry is a nonprofit organization that sets consistent and transparent standards by which to calculate, verify and report greenhouse gas emissions. It is composed of more than 331 major companies, cities and government and non-governmental agencies that have committed to tracking and publicly sharing their greenhouse gas emissions through the registry.

By joining The Climate Registry, Hydranautics has set a baseline goal for further reducing their greenhouse gas emissions as part of their continued commitment to responsible environmental stewardship.

Our report is available from The Climate Registry website.