

# Chemical Management

In order to prevent environmental pollution, we strictly control the chemical substances we use. We are working to find alternative substances and methods for reducing the use of hazardous chemicals. At the same time, we are also making efforts to determine which chemical substances are present in the products we purchase.

## Stance on Chemical Management

Depending on the handling methods and types, the chemicals used in business activities could pose risks of environmental pollution.

In order to prevent pollution from chemical substances, TEL carries out strict controls that take the environment and safety into account at every stage, from the initial decision to introduce a chemical, to its eventual disposal.

Before introducing a new chemical, each plant obtains MSDS\* information and evaluates the risk of hazard and then makes a decision about whether or not to handle the chemical. We also take measures to ensure that no chemical leaks occur, and make an effort to find alternatives for and reduce the use of hazardous chemicals in products.

## Clarifying the Chemicals Contained in Products

In response to a number of international and domestic laws, regulations and related trends, TEL is working to clarify which chemicals should be prohibited from use in products, such as asbestos, mercury and cadmium, and which chemicals should be reduced, such as lead and PVCs. Our goal is to properly manage the chemical substances contained in products.

We are also applying our chemical management experience to green procurement, and improving efforts to select and determine the amount of chemicals that should be controlled, and that are contained in the products we purchase.

## Responses to the PRTR Law\*

Japan's PRTR Law requires that companies report emissions and transfers to products and wastes of Class 1 substances (354 chemical groups in total) for those handled in amounts of 5 tonnes or more during the first two years of the law's enforcement, beginning in 2001. TEL, however, is controlling and determining quantities of 0.1 tonne or more- smaller amounts than those required to be reported to the government. In other words, our restrictions are more stringent than those required by law.

TEL statistics for PRTR target substances in fiscal 2001 are shown in the table below. Of substances that are subject to reporting under the PRTR law, we handled no more than five tonnes per year at any one factory.

■ Data on Substances Controlled under the PRTR Law (Units: tonnes)

Official number	Name of Class 1 chemical	Amount handled
16	2-amino ethanol	0.52
43	Ethylene glycol	1.50
44	Ethylene glycol monomethyl ether	0.12
63	Xylene	0.18
172	N,N-dimethylformamide	0.29
207	Copper salts (water-soluble, except complex salts)	0.19
227	Toluene	0.62
283	Hydrogen fluoride and its water-soluble salts	2.47

## MSDS Database Management

We are sharing MSDS safety information on all chemicals newly introduced at any plant by using a database hosted on TEL's intranet. Because information searches can be conducted from all plants, any user can determine the toxicity and hazard level for each individual chemical, and make a decision on whether or not to use it.



Screenshot of an intranet search

MSDS (Material Safety Data Sheet): Material information used to determine accurately the toxicity and proper handling of chemical substances. PRTR (Pollutant Release and Transfer Register): A framework for overseeing chemical substances that may be hazardous to ecosystems and human health, which is employed to identify and compile data, and report on the amount of chemicals used, the amount released into the environment, and the amount contained in wastes transferred off-site.

## Management of PCBs

The Law Concerning Special Measure against PCB waste was enacted on June 15, 2001, and went into effect on July 15 of the same year.

This law requires Japan's national and prefectural governments to develop plans for handling PCBs in order to dispose of PCB waste, and to undertake efforts to secure the proper infrastructure to dispose of PCBs, including the construction of treatment facilities. The law also makes it mandatory for private entities that are storing PCB waste to dispose of it within 15 years of the date the law went into effect, and to report to the prefectural government every fiscal year on the PCBs being stored and the status of disposal.

TEL is carrying out stringent control of PCBs in storage, and as soon as a suitable treatment method is available, will dispose of these wastes.



PCB storage building

The following table shows the status of storage and control of equipment containing PCBs.

### Storage and Control of Equipment Containing PCBs (in Japan)-Tokyo Electron Group

Item	Number in storage
Transformers	2
Condenser	1

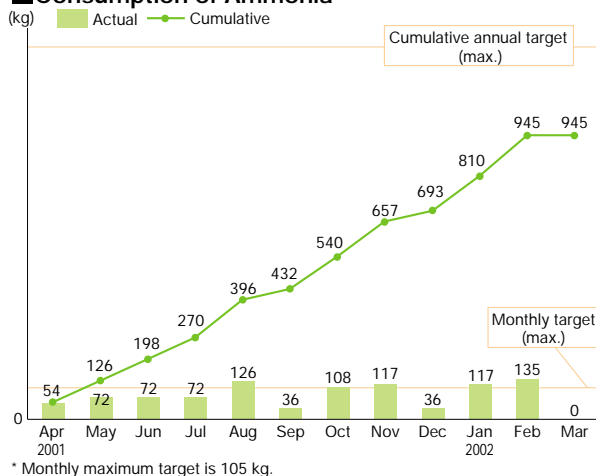
### Activities by Each Plant

The types and amounts of chemicals used are different for each plant. Because of this, each plant is conducting its own controls based on its actual use of chemical substances, including determining which substances to reduce and what the reduction targets should be.

A subcommittee at the Saga Plant has created an organizational system for the proper management of chemical substances. This system, which enables the plant to maintain the proper levels of chemical stocks and supplies, was established during fiscal 1998 and continues today.

To illustrate the Saga Plant initiative, the graphs below compare the consumption of ammonia and hydrogen peroxide in fiscal 2000 and 2001. For both chemicals, the amounts used declined from fiscal 2000. We will continue to strive to minimize the amounts of chemicals used and their environmental burdens.

### Consumption of Ammonia



### Consumption of Hydrogen Peroxide

