

# Effectively Managing Chemical Substances, Conducting Risk Management

Sharp ensures the unified control and management of consumption and discharge of all chemical substances through its chemical substance management system. Sharp also promotes the preferential reduction of chemical substances placed under high-priority control and of those having greater impact on human health by conducting risk assessment. Sharp also discloses information on environmental risks and promotes good communication with local communities.

Objectives for Fiscal 2007	Achievements for Fiscal 2007	Objectives for Fiscal 2008	Objectives for Fiscal 2012
Sharp Corporation production sites in Japan • Reduce discharge risk <sup>*1</sup> by 60% compared to fiscal 2003	Reduced by 75% compared to fiscal 2003	Formulate a new policy for management of chemical substances • Switch from downstream to upstream management and to line-specific management	Set in place the new policy for management of chemical substances

<sup>\*1</sup> Discharge risk: Total of all numerical values assigned to each chemical substance released into the atmosphere. Values are calculated as per: Discharged amount (concentration at site boundary) x Risk to human health coefficient

## Effective Management of Chemical Substances

Sharp conducts rigorous preliminary audits based on the C-PA system<sup>\*2</sup> and the process assessment system<sup>\*3</sup> to determine the environmental, safety, and health effects of new chemical substances and handling equipment. In addition, Sharp implements regular education and training and conducts across-the-board safety audits to prevent accidents and reduce environmental impact.

Sharp centrally manages the quantities of chemical substances handled and discharged at domestic production sites by utilizing S-CMS<sup>\*4</sup> and other systems concerning chemical substance usage.

Sharp is promoting discharge reduction and proper management of chemicals such as VOCs<sup>\*5</sup> and high-priority management substances (460 substance groups consisting of the 354 substance groups covered by the PRTR<sup>\*6</sup> Law plus 106 additional substance groups, including hazardous air pollutants).

- <sup>\*2</sup> C-PA system: A system to conduct assessments on the harmful effects of chemical substances in use.
- <sup>\*3</sup> Process assessment system: A system to conduct preliminary assessments on the safety of equipment handling chemical substances.
- <sup>\*4</sup> S-CMS: Sharp Chemical Management System
- <sup>\*5</sup> VOC: Volatile organic compounds
- <sup>\*6</sup> PRTR: Pollutant Release and Transfer Register. A system to collect and publicize data, such as the amount of harmful chemicals discharged and transferred.

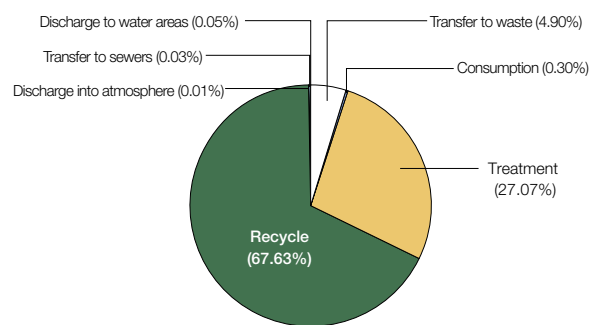
## Reducing Chemical Substance Emissions and Discharge Risks

Of the chemical substances covered by the PRTR Law, the number of chemicals handled in quantities greater than 500 kg in fiscal 2007 at all domestic production sites amounted to 17 substances or 12,920 tons (up 44% over the previous fiscal year). Although the use of PRTR chemicals increased as a result of business expansion, emissions fell by 67% from the previous fiscal year to 8.3 tons due to the use of alternative substances and the installation of abatement systems to reduce designated chemicals.

In fiscal 2004, Sharp introduced an approach to risk assessment that evaluates every type of chemical discharged and began taking measures for the preferential reduction of chemical substances having a greater impact on human health. In fiscal 2007, discharge risks were reduced around 75% from fiscal 2003.

In addition, Sharp is steadily advancing the reduction of VOC discharge by following the objectives of the industry's voluntary action plan based on the Amendment of the Air Pollution Control Law in Japan.

### Destinations of PRTR-listed chemical substances in Japan



### Chemical substances discharged in large amounts into the atmosphere and water areas in Japan

Main chemical substances	Fiscal 2007 discharge (kg)	Proportion (%)	Compared to previous fiscal year (%)	Fiscal 2006 discharge (kg)
Hydrogen fluoride & its water-soluble salts	6,835	82.1	74.5	9,175
2-Aminoethanol	1,153	13.9	66.2	1,743
Xylene	134	1.6	19.3	694
Others	202	2.4	25.5	791
Total	8,324	100.0	67.1	12,403

## Risk Communication and Information Disclosure

Sharp regularly and actively discloses environmental risk information associated with business activities by means of periodic Sharp Festivals and the publication of site reports at each site. Sharp has also placed specially educated Risk Communicators at all Sharp Corporation sites to promote mutual understanding and communication between the company, its neighboring residents, and the local government.

A survey conducted in 1998 on soil and groundwater identified chlorine solvent pollution within Sharp Corporation's Nara, Yao, Tenri, and Katsuragi sites. With the exception of Nara, all sites have reduced contamination levels below those of the environmental standard via biotechnology. Sharp is continuing purification at the Nara site in order to reduce its contamination levels below those of the environmental standard, and regularly notifies government authorities and residents of the cleanup progress.