



Shiro Endo
Senior Managing Director
Chairman, Pollution
Prevention Subcommittee

Pollution Prevention Subcommittee

The Pollution Prevention Subcommittee is dedicated to reducing the environmental impact of Toyota Industries' production activities and to maintaining an open dialogue with the local community.

Our main objective is to prevent pollution while managing and reducing the company's use of substances of concern. In recent years, we have seen the introduction of increasingly stringent regulations designed to protect the environment from the effects of the use of substances of concern. With the introduction of legislation such as Japan's PRTR Law and the European Union's end-of-life vehicle (ELV) directive, some products are even prohibited due to their inclusion of such substances.

There is still much that we need to learn about, such as the role of environmental endocrine disruptors in chemical substances. These and other issues serve to remind us of the need to be constantly vigilant about the chemical substances we use.

The Pollution Prevention Subcommittee is committed to further strengthening its efforts to prevent pollution through continued regulatory compliance and the implementation of voluntary measures. We will maintain a stance of full information disclosure and open dialog with the community, so that we may contribute to a sustainable society where humankind and nature can harmoniously co-exist.

Chemical Substance Management and Activities to Reduce Substances of Concern

Toyota Industries is making every effort to implement voluntary activities that are designed to prevent pollution and reduce harmful emissions by responding to the global need for chemical substance management.

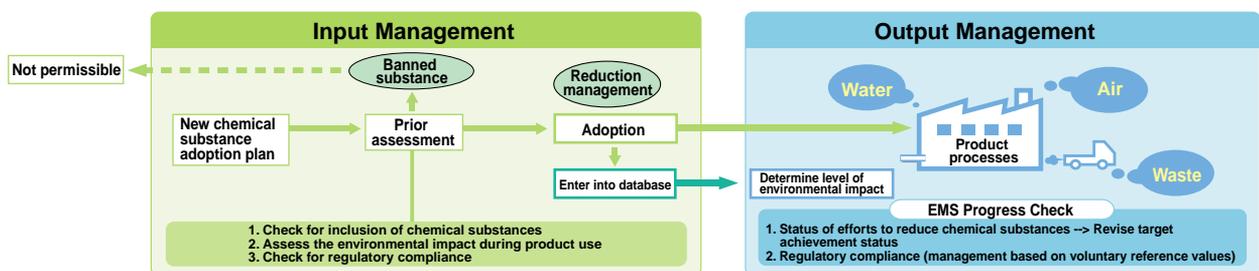
● Medium Range Goals and Major Objectives

Toyota Industries' Third Environmental Action Plan sets a medium range goal of achieving a 50% reduction in total emissions of PRTR-designated substances and emissions per net sales of VOCs by FY 2005, compared with FY 1998 levels. The Action Plan also sets forth the major objectives described below.

■ Comprehensive Management of Chemical Substances
Toyota Industries uses a prior assessment system to reduce its environmental impact and reduce various environmental risks. Risk management is practiced by comprehensively managing the adoption of new chemical substances. In addition, Toyota Industries has established its own voluntary control values governing the use of chemical substances, and is further enhancing its system for managing the company's regulatory compliance.

■ Reduce Emissions of Substances of Concern
Toyota Industries has singled out VOC emissions from painting processes as having a major impact on the environment. The company is taking steps to reduce VOC emissions by switching to powder coating and the use of water-soluble coatings. Furthermore, Toyota Industries has introduced equipment modifications such as installing VOC filters and thinner recovery equipment. The company has also improved its work procedures to further minimize VOC emissions as part of its overall effort to halve its VOC emissions.

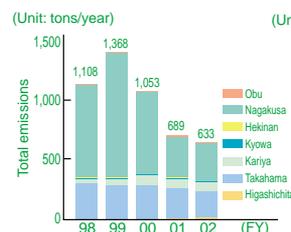
Chemical Substance Management Overview



● FY 2002 Achievements

In FY 2002, Toyota Industries' emissions of PRTR-designated substances stood at 633 tons, while its VOC emissions stood at 3.3 tons per billion yen. As for PRTR-designated substances, the company did not achieve its FY 2002 target due to increased production at the Nagakusa and Kariya Plants (textile machinery plant). Compared with the previous fiscal year, Toyota Industries achieved an 8% decrease in PRTR-designated substances and a 20% decrease in VOC emissions as a result of switching to powder coating and of other efforts to reduce VOCs.

PRTR-Designated Substance Total Emissions

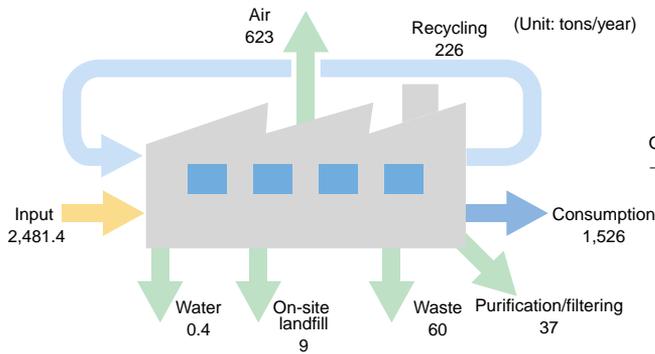


VOC Total Emissions and Emissions Per Net Sales

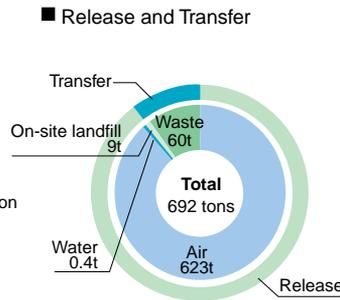


*Figures for VOC emissions per net sales are based on the total net sales from the three business units that emit VOCs.
*Data for compressor division are not included in that of Kariya Plant.

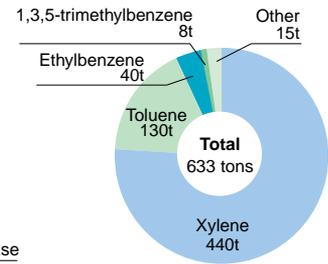
FY 2002 PRTR-Designated Substance Mass Balance



FY 2002 PRTR-Designated Substance Release and Transfer



PRTR Emissions by Substance



FY 2002 Measures

Description	Measure	Plant
Change in paint materials	• Switch to powder coating	Takahama Plant See Case Study
Change in paint methods	• Switch to single coat application	Takahama Plant See Case Study
Ongoing improvements to work procedures	• Reduce coatings and thinner consumption • Improve thinner recovery rate • Switch from thinner cleaning to rag wiping for cleaning of painting machinery	Nagakusa Plant

Case Study Activities at Takahama Plant

Annual VOC emissions reduction: 70 tons

Powder coating involves electrostatically charging and applying a powder to a metal surface. The applied paint is then cured to produce an even coat application. Unlike conventional solvent-based coatings, powder coatings do not contain thinning agents and are therefore friendlier to the environment and safer to work with.

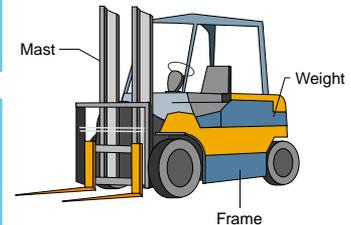
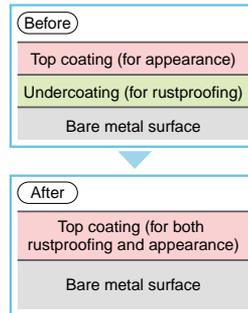
In January 2003, Toyota Industries' Takahama Plant switched to using powder coating in its painting process for forklift truck masts. The Takahama Plant had previously eliminated undercoating of forklift truck frames and weights in September 2002, as an initial step toward reducing emissions of substances of concern from its painting lines.

Powder Coating Process



Elimination of Undercoating

Forklift Truck Components



Future Activities

In FY 2003, the Kariya Plant (Textile Machinery Division) will adopt powder coating in its paint processes. The Nagakusa plant will switch to water-soluble coatings in order to further reduce its VOC emissions.

Subsidiary Spotlight

VOC Reduction Activities at Overseas Manufacturing Subsidiaries

European and American restrictions on VOC emissions are stricter than similar regulations in Japan, which directly affects Toyota Industries' subsidiaries in these regions. Toyota Industries' overseas manufacturing-related subsidiaries include several firms that use relatively large-scale painting equipment, which cause VOC emissions. This group includes Toyota Industrial Equipment Mfg., Inc. (TIEM), Toyota Industrial Equipment, S.A. (TIESA) and BT Industries Group, which manufacture materials handling equipment. Michigan Automotive Compressor, Inc. (MACI) and Kirloskar Toyoda Textile Machinery Ltd. (KTTM) also use large-scale painting equipment at their facilities. All of these subsidiaries are gradually switching to new coating processes in an effort to reduce their VOC emissions.

Subsidiary	Paint Measures			Equipment Measures
	Thinner Reduction	Powder Coating	Water-Soluble Coating	
TIEM	○	○	—	○
MACI	—	—	—	○
TIESA	○	—	—	—
BT	○	○	○	—
KTTM	—	○	○	—