Management of Chemical Substances

Murata compiles accurate information on the chemical substances it handles through a comprehensive and focused management structure.

Compiling of the Database

In 1998, Murata established a chemical substance inspection and registration system. We have been using this system since 2000 to enforce voluntary management of chemical substances throughout the Murata Group in Japan.

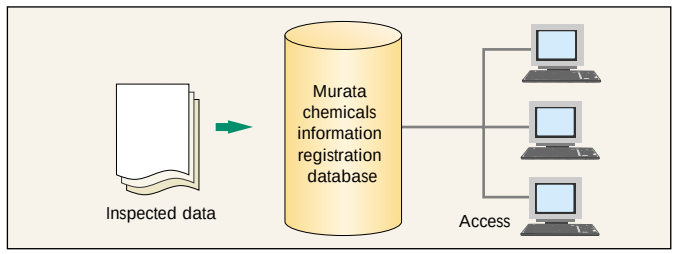
This system requires that we obtain a Material Safety Data Sheet (MSDS)* for each chemical substance that we use in the mass production of our products and that we obtain detailed information from suppliers on the environmental impact of the chemical substance—based on a contamination level ranging from that of an impurity to a hazardous level—in line with Murata's own inspection sheet. Prior to the procurement stage, Murata Manufacturing's specialists in charge of Industrial Health and Safety, Environment, and Product Safety subject the substance to the required staff inspection, while plant employees who use the substance subject it to a plant inspection. This step allows us to establish compliance with Murata's own voluntary regulations as well as environmental laws, laws related to industrial health and safety, and chemical laws (such as TSCA**) in Japan and other countries. We also verify compliance with local regulations.

Only those chemical substances that pass these inspections are issued a unique number. The handling (purchase, application, manufacturing, storage, and sale) of a substance is possible only after the substance has been registered in Murata's database. In addition, this registered information is linked to the company's internal material procurement system and is monitored to prevent the purchase of unregistered chemical substances. In this way, we ensure the proper use of chemical substances and support the manufacture of products with a low environmental impact.

* To help ensure the safe handling of chemical substances, this document provides indispensable information such as the name of the substance, its supplier, its hazard and toxicity, the safety measures required in its handling; and proper emergency measures in the event of an accident.

** The Toxic Substances Control Act is a U.S. law regulating the manufacture, handling and application of chemical substances. It is intended to protect human health and the environment from toxic substances. When producing a new chemical or exporting a chemical to the U.S.A., we must first submit safety data and other necessary information and inspection reports to the EPA (U.S. Environmental Protection Agency).
Murata established a system that ensures that no chemical can be shipped to the U.S.A. other than those that have been rated as suitable for export. Since 2003, we have been using this system.

Information sharing



The Pollutant Release and Transfer Register

Murata has compiled a database that contains information on the chemical substances handled within our plants in Japan. We employ a system that enables us to obtain and manage the application situations of individual chemical substances quickly and easily.

In compliance with the Japanese Pollutant Release and Transfer Registry (PRTR) law, we use Murata's chemical database system to calculate the amount of chemicals released and transferred.

The law stipulates 354 substance groups subject to reporting. In Japan, between April 1, 2002 and March 31, 2003, Murata handled 14 substance groups for which PRTR reporting was required including toluene, xylene and lead. Detailed information on releases and transfers of each of these 24 substances is listed in the table below.

Murata has long taken steps to reduce environmental emissions, such as introducing facilities for removing hazardous substances; modifying production process; improving operations; and promoting conversion to substitute substances. In the future, will make practical use of PRTR data and, for chemical substances released in large amounts, we will assign target values and implement additional reductions.

Pollutants Released and Transferred Subject to the PRTR Law (Total for Japan) (metric tons/year)

Gov't issued No.	Substance	Released				Transferred		
		Atmospheric release	Released to public bodies of water	To soil	Landfilled	Released to sewerage	Transferred to waste	Transferred to recycling
16	Monoethanolamine	0.0	0.0	0.0	0.0	0.0	0.0	6.1
25	Antimony and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.6
30	Bisphenol A liquid epoxy resin	0.0	0.0	0.0	0.0	0.0	1.8	1.1
40	Ethyl benzene	5.0	0.0	0.0	0.0	0.0	1.0	0.0
45	Ethylene glycol monomethyl ether	0.0	0.0	0.0	0.0	0.0	0.0	5.6
58	1-octanol	0.0	0.0	0.0	0.0	0.0	0.0	0.9
63	Xylene	4.7	0.0	0.0	0.0	0.0	1.2	27.3
64	Silver and its water-soluble compounds	0.0	0.0	0.0	0.0	0.0	1.2	16.9
68	Chromium and trivalent chromium compounds	0.0	0.0	0.0	0.0	0.0	0.2	0.6
100	Cobalt and its compounds	0.0	0.0	0.0	0.0	0.0	1.2	0.3
177	Styrene	4.0	0.0	0.0	0.0	0.0	0.0	1.4
202	Tetrahydroxymethyl anhydrous phthalic acid	0.1	0.0	0.0	0.0	0.0	0.4	0.1
207	Water-soluble copper salts (excluding complex salts)	0.0	0.0	0.0	0.0	0.0	0.0	2.0
227	Toluene	23.2	0.0	0.0	0.0	0.0	141.3	462.4
230	Lead and its compounds	0.0	0.0	0.0	0.0	0.0	12.4	104.4
231	Nickel	0.0	0.0	0.0	0.0	0.0	20.0	67.1
232	Nickel compounds	0.0	0.0	0.0	0.0	0.0	12.1	18.8
242	Nonyl phenol	0.0	0.0	0.0	0.0	0.0	0.0	2.0
253	Hydrazine	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	Di-n-butyl phthalane	0.1	0.0	0.0	0.0	0.0	2.9	1.9
272	Bis-2-ethylhexyl phthalate	0.0	0.0	0.0	0.0	0.0	17.3	3.0
304	Boron and its compounds	0.0	0.0	0.0	0.0	0.0	4.9	1.5
310	Formaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	0.0
311	Manganese and its compounds	0.0	0.0	0.0	0.0	0.0	2.3	0.7

* The above data covers the period April 1, 2003 to March 31, 2004. * PRTR reporting is required when more than 1 metric ton of the PRTR substances are handled per year.
* Amounts of less than 100 kilograms are rounded up. * As the waste transfer amount in fiscal 2003 was entirely recycled, this amount is expected to be zero in fiscal 2004.