

Summary of PRTR Data for FY 2002
- Aggregates on Release and Transfer of Chemical Substances -

The Ministry of the Environment and the Ministry of Economy, Trade and Industry jointly disclosed the second result of aggregates since the promulgation of the Chemical Substance Release Reporting and Management Promotion Law. The summary of the result was compiled into a brochure entitled “Summary of PRTR Data for FY 2002 –Aggregates on Release and Transfer of Chemical Substances.”

Business establishments of 34,517 nation-wide, under business categories subjected to reporting, reported during the period from April 1, 2003 to June 30, 2003 their release and transfer of all specified chemicals for FY 2002 (April 1, 2002 – March 31, 2003). The amount of reported release and transfer was 290,000 tons and 217,000 tons respectively, with the total of 508,000 tons (529,000 tons in FY 2001).

The estimation on releases exempted from reporting (releases which require no reporting by industries subjected to reporting, releases by industries not subjected to reporting, releases from households, releases from mobile sources such as automobiles and others) by the national government showed nationwide total of 589,000 tons.

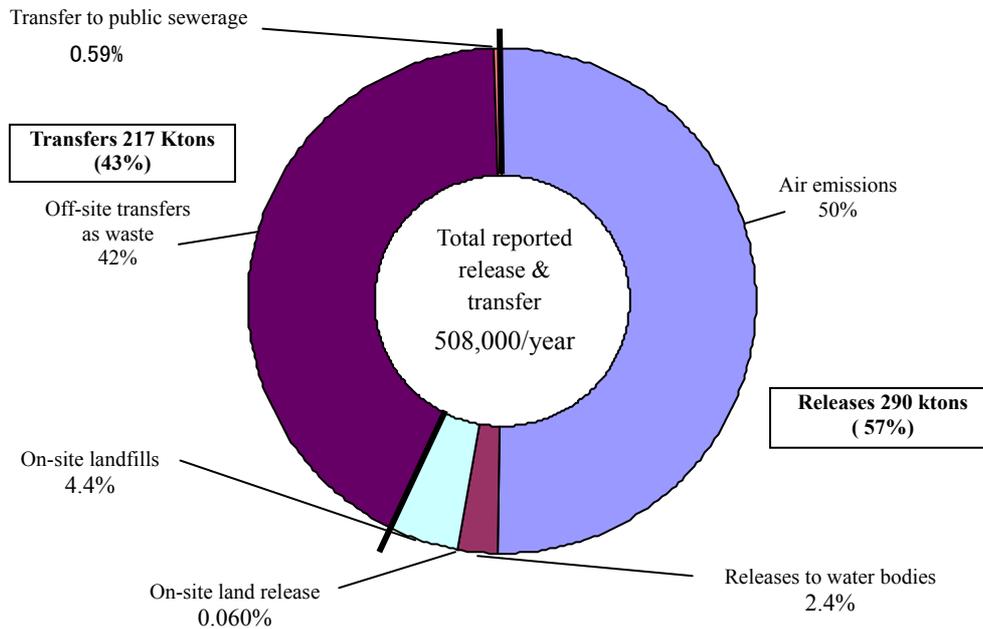
1. Reported release and transfer

1) Total reported releases and transfers in Japan

The amounts of reported releases and transfer totaled 508 ktons: releases of 290 ktons and transfers of 217 ktons.

The breakdown of releases was; air emissions 256 ktons (88% of the total releases: 88%), releases to water bodies 12 ktons (4.1%), on-site-land releases 0.30 ktons (0.10%), and on-site-landfills 22 ktons (7.7%). And the breakdown of transfers was; off-site transfers in waste 214 ktons (99% of the total transfers: 99%) and transfers to public sewerage 3.0 ktons (1.4%).

Breakdown of Reported Releases and Transfers



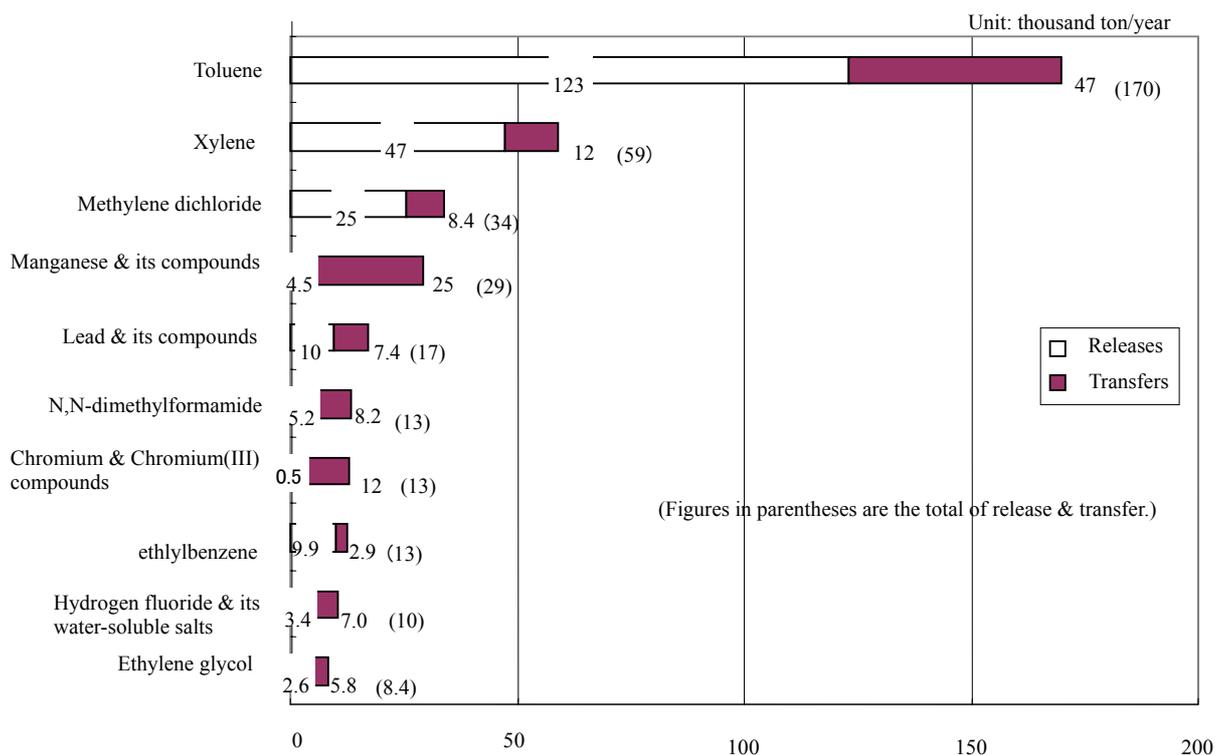
2) Chemicals with high-volume of reported release and transfers

The top 10 chemicals with high-volume of reported releases and transfers totaled 367 ktons, corresponding 72 percent of the total releases and transfers 508 ktons. The top 5 of these chemicals are as follows.

	Specific chemical substance	Amount of reported release and transfer	Usage
1	Toluene	170,000 tons (33%)	Solvents or raw material
2	Xylene	59,000 tons (12%)	Ditto
3	Methylene dichloride	34,000 tons (6.7%)	Metal cleaning, etc
4	Manganese and its compounds	29,000 tons (5.7%)	Special steel, batteries, etc.
5	Lead and its compounds	17,000 tons (3.3%)	Batteries, optical glasses, pigments, etc.

Note: Figures in parentheses are the ratio of chemicals to the total reported release and transfer.

Top 10 Chemicals with High-volume of Reported Releases & Transfers



3) Chemicals with high-volume of reported releases

The reported releases of the top 10 chemicals totaled 243 kt/year, accounting for 84 percent of the total releases for all PRTR chemicals. The top 5 of these chemicals are as follows.

	Specific chemical substance	Amount of reported release and transfer	Usage
1	Toluene	123,000 tons (42%)	Raw material for synthetic compounds or solvents
2	Xylene	47,000 tons (16%)	Ditto
3	Methylene dichloride	25,000 tons (8.7%)	Metal cleaning, etc
4	Ethylbenzene	9,900 tons (3.4%)	Raw material for synthetic compounds or solvents
5	Lead and its compounds	9,600 tons (3.3%)	Batteries, optical glasses, pigments, etc.

Note: Figures in parentheses are the ratio of chemicals to the total reported release and transfer.

4) Reported releases and transfers by industry

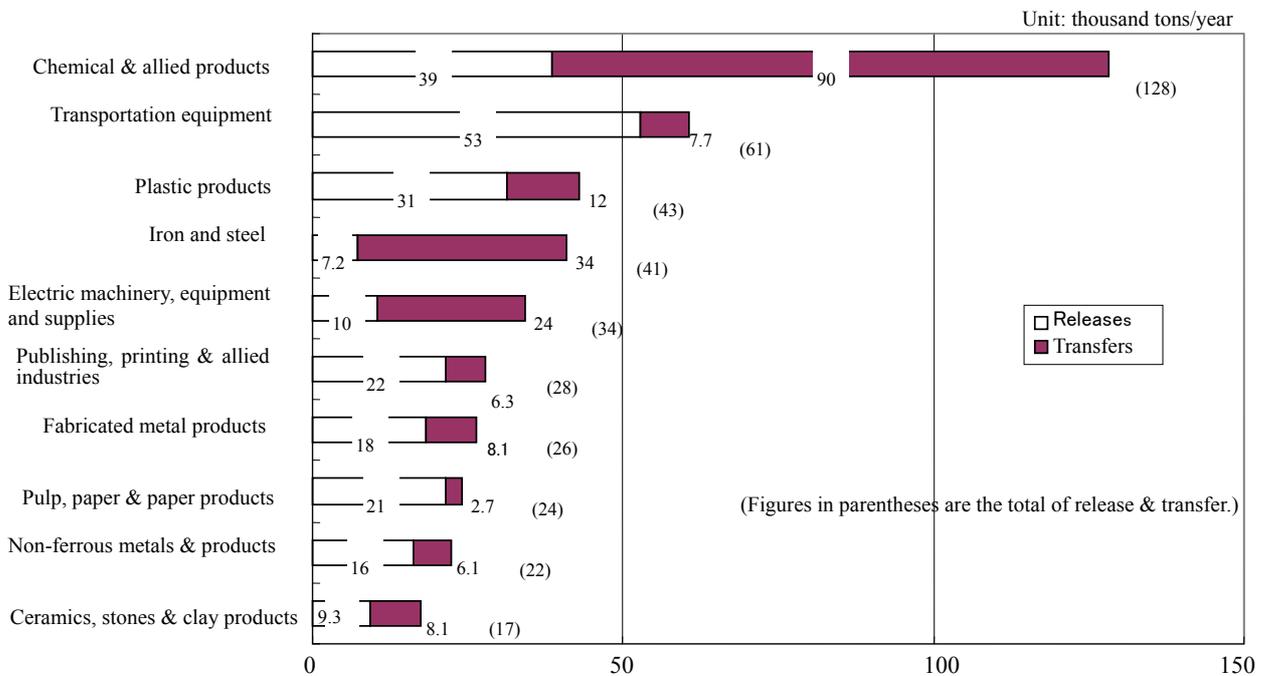
The total amount of reported releases and transfers for the 45 industry categories was 508 ktons, of which 489 ktons was from 23 manufacturing industries, corresponding to 96 percent of the total.

The amount of reported releases and transfers from the top 10 industries totaled 425 ktons, corresponding to 84 percent of the total. These top 10 industries are as follows.

	Business category	Amount of reported releases and transfers
1	Chemical and allied products	128,000 tons (25%)
2	Transportation equipment	61,000 tons (12%)
3	Plastic products	43,000 tons (8.5%)
4	Iron and steel	41,000 tons (8.1%)
5	Electric machinery, equipment and supplies	34,000 tons (6.7%)
6	Publishing, printing and allied industries	28,000 tons (5.5%)
7	Fabricated metal products	26,000 tons (5.2%)
8	Pulp, paper and paper products	24,000 tons (4.8%)
9	Non-ferrous metals and products	22,000 tons (4.4%)
10	Ceramics, stone and clay products	17,000 tons (3.4%)

Note: Figures in parentheses are the ratio of reported release and transfer from each business category to the total reported release and transfer.

Top 10 Businesses with High-volume of Total Report Releases & Transfers



5) Reported release by industry

The total releases from 45 industries were 290 ktons. The releases from the top 10 industries totaled 234 ktons, corresponding to 81 percent of the total releases. These top 10 industries are as follows.

	Business category	Amount of reported releases
1	Transportation equipment	53,000 tons (18%)
2	Chemical and allied products	39,000 tons (13%)
3	Plastic products	31,000 tons (11%)
4	Publishing, printing and allied industry	22,000 tons (7.4%)
5	Pulp, paper and paper products	21,000 tons (7.4%)
6	Fabricated metal products	18,000 tons (6.3%)
7	Non-ferrous metals and products	16,000 tons (5.6%)
8	Rubber products	13,000 tons (4.4%)
9	Miscellaneous manufacturing industries	11,000 tons (3.8%)
10	Electric machinery, equipment and supplies	10,000 tons (3.6%)

Note: Figures in parentheses are the ratio of reported release from each business category to the total reported release.

2. Results of estimation of releases exempted from reporting

1) Total estimated releases in Japan

The total estimated releases exempted from reporting for the reporting year 2002 were 589 ktons. The breakdown of the estimate by releases is as follows.

Release exempted from reporting	Amount of estimated release
Releases industries subject to reporting ¹⁾	251,000 tons (43%) ²⁾
Releases from industries not subject to reporting	123,000 tons (21%)
Releases from households	62,000 tons (10%)
Releases from mobile sources	154,000 tons (26%)

Notes: 1. The releases are from the business entities categorized as those subjected to reporting, however, these do not meet the reporting requirements such as number of employees, annual handling quantity, etc., they are exempted from reporting.

2. Figures in parentheses are the ratio to the total estimated release not subject to reporting.

3. Total of reported releases and estimated releases

The total amount of reported releases and estimated releases was 880 ktons. The releases of the top 10 chemicals were 659 ktons, accounting for 75 percent of the total. The top 5 of these chemicals are as follows.

	Specific chemical substance	Total of reported and estimated releases	Remarks
1	Toluene	281,000 tons (32%)	Utilized as solvents in adhesives and paints, etc., raw materials; contained in automobile emissions
2	Xylene	169,000 tons (19%)	Ditto
3	Methylene dichloride	43,000 tons (4.8%)	Metal cleaning, etc.
4	Ehtylbenzene	40,000 tons (4.5%)	Solvents
5	Formaldehyde	29,000 tons (3.3%)	Contained in automobile emissions; used as a raw material and disinfectant

Note: Figures in parentheses are the ratio of the total of reported and estimated releases of each chemical to the total of reported and estimated release.