Management of Chemical Substances

Management in Accordance with the PRTR Law

The PRTR Law was drafted in 1999 and took effect in April 2001. The law requires quantification of specified chemicals emitted into the environment and improved handling of such emissions. The law aims to get businesses handling such hazardous chemicals to control emissions voluntarily by reporting quantified volume figures publicly.

Benzene, toluene, and xylene are designated as hazardous substances under the law. These chemicals are found in gasoline at refineries, depots, and service stations and are often discharged into the air when gasoline is transferred to a tank, tank lorry, or marine tanker. However, improvements in tank and filling equipment have resulted in reduced emissions into the air, and the company is striving to further reduce such emissions.

Total Volume of PRTR-Designated Substances Discharged/Transferred by the Showa Shell Group in 2005

(tonnes)

Item number by law	Substance group	Amount handled	Discharged/transferred volume				Removed/disposed amount	Recycled volume	Consumed volume
			Atmospheric emissions	Effluents	Transferred wastes	Total			
1	Water soluble zinc compounds	1.4	0.0	1.4	0.0	1.4	0.0	0.0	0.0
16	2-ethanolamine	4.3	0.0	0.0	0.0	0.0	4.3	0.0	0.0
40	Ethylbenzene	213,351.6	2.1	0.0	0.0	2.1	0.0	0.0	213,349.5
63	Xylene	1,142,957.2	9.6	0.0	0.0	9.6	0.0	0.0	1,142,947.6
114	Cyclohexylamine	4.5	0.0	0.0	0.0	0.0	4.5	0.0	0.0
200	Tetrachloroethylene	56.0	0.0	0.0	0.0	0.0	37.7	0.0	18.3
224	1,3,5-trimethylbenzene	49,100.0	0.1	0.0	0.0	0.1	0.0	0.0	49,099.9
227	Toluene	529,176.5	37.0	0.0	0.0	37.0	0.0	0.0	529,139.5
253	Hydrazine	3.64	0.0	0.011	0.0	0.011	1.829	0.0	1.8
299	Benzene	176,905.6	10.2	0.0	0.0	10.3	0.0	0.0	176,895.4
346	Molybdenum and its compounds	1.2	0.0	0.0	1.2	1.2	0.0	0.0	0.0
179	Dioxins (mg-TEQ)	–	0.0	0.3	0.0	0.3	0.0	0.0	0.0

Notes:
1. Figures are rounded to the first decimal place.
2. The survey was conducted at the following operational sites: Toa Oil, Showa Yokkaichi Sekiyu, Seibu Oil, Kobe Blending Plants, Niigata Oil Products Import Terminal, Higashi-Ogishima Oil Terminal, and Central Laboratory, as well as seven Showa Shell depots and nine 9 Japan Oil Network Co., Ltd., depots.

MSDS

When transferring a product containing chemical substances, the transferor is required to provide information on the properties, characteristics, and hazardous nature of the substance, as well as handling precautions. An MSDS records all such information.

Showa Shell prepares MSDSs for its products and provides them as necessary. Customers use them for the safe handling of petroleum products.

The Globally Harmonised System of Classification and Labeling of Chemicals (GHS)

GHS is a system of identifying the inherent dangers and toxicity of chemical substances and compounds for the purpose of providing this information to consumers, laborers, transportation workers, and emergency response personnel.
The following two paragraphs provide a summary of GHS.
(1) GHS establishes standards for the evaluation of explosives, flammable/combustible gases, high-pressure gases, and other substances with regard to their physicochemical risks (16 items); of adverse impact on health (10 items); and adverse impact on the environment (1 item).
(2) GHS sets forth the method of conveying information on danger and toxicity using label displays with pictograms and signal words, and the MSDS.

To promote the comprehensive adoption of GHS in Japan, and in the interest of the management and safe use of chemical substances in the workplace, the sections of the Industrial Safety and Health Law dealing with the MSDS have been revised. Showa Shell is working to prepare and distribute an MSDS based on GHS by December 2006, which is the company's target date for the implementation of GHS.