



5 Management of Chemical Substances

① Management in Accordance with the PRTR Law

The PRTR (Pollutant Release and Transfer Register) law enacted in 1999 came into enforcement in April 2001. The objective of the PRTR law (the law to quantify the emission of the specified chemical substances to the environment and expedite improvement in its management) is for owners of businesses handling potentially hazardous chemicals to manage them voluntarily by means of grasping the quantity of handling and

discharging of such chemicals and making public the pertinent information.

For petroleum-related facilities, benzene, toluene and xylene are designated as the specified substances, which are usually contained in petrol handled at refineries, depots and service stations. These substances are discharged into air when petrol is transferred to a tank or loaded to a tank truck or a marine tanker.

■ Discharged quantities of PRTR designated substances (Showa Shell Group total of 2003)

Unit: ton

Item no. by law	Substance group	Handled amount	Discharged/transferred amount				Removed/disposed amount	Recycled amount	Consumed amount
			to atmosphere	to water	Transferred wastes	Total			
1	Water soluble compounds of zinc	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	109,309.6	2.7	0.0	0.0	2.7	0.0	0.0	109,306.9
63	Xylene	530,275.8	11.6	0.0	0.0	11.6	0.0	0.0	530,264.2
114	Cyclohexylamine	4.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
200	Tetrachloroethylene	51.5	0.0	0.0	0.0	0.0	26.0	0.0	25.5
224	1,3,5-trimethylbenzene	42,250.9	0.2	0.0	0.0	0.2	0.0	0.0	42,250.7
227	Toluene	461,131.0	47.8	0.0	2.2	50.0	15.0	0.0	461,066.0
253	Hydrazine	4.4	0.0	0.0	0.0	0.0	0.0	0.0	4.4
299	Benzene	57,205.9	11.3	0.4	0.0	11.7	0.0	0.0	57,194.2
346	Molybdenum and its compounds	4.5	0.0	0.0	0.0	0.0	0.0	4.5	0.0
179	Dioxins (mg-TEQ)	-	0.0	0.3	0.0	0.3	0.0	0.0	0.0

*Figures are rounded to the first decimal place.

*Research conducted at (business sites): Toa Oil, Showa Yokkaichi Sekiyu, Seibu Oil, Kobe Blending Plants, Niigata Oil Products Import Terminal, Higashi-Ohgishima Oil Terminal, Central Laboratory, and depots (8 Showa Shell Sekiyu depots, 9 JONET depots)

② MSDS (Material Safety Data Sheet)

When transferring a product containing a chemical substance, it is obligatory for the transferor to provide information on the properties, characteristics and hazardous nature of the substance as well as handling precautions. A Material Safety Data Sheet (MSDS) describes these pieces of information.

Showa Shell Sekiyu has prepared MSDS's for its products, and provides them when necessary. They are utilized at our customers for safely handling our petroleum products.

③ Guidelines for Animal Testing

For chemical substances used in products, it is required to fully ascertain their safety to living organisms. In some cases, it is legally required to check their toxicity by conducting an animal experiment for that purpose. We have formulated and put into practice "Guidelines for Animal Testing" that prohibit the use of an excessive number of animals when conducting an animal experiment from the standpoint of animal protection. These guidelines are based on the "Animal Testing Guideline" established by Shell.

