Environmental Data for Overseas Plants

Lion daily Necessities Chemicals (Quingdao) Co., Ltd.

Location: Qingdao (China)

Lines of Business: Toothpastes and toothbrushes

Category	Year				(ton)
	2007	2008	2009	2010	2011
CO ₂ emissions	1,744	1,533	1,668	1,566	1,576
Total waste generated	89	344	130	262	232
Landfill waste	57	187	50	162	2
SOx emissions	0	0	0	0	0
NOx emissions	0	0	0	0	0
COD emissions	2	2	2	2	2

CJ Lion Corporation

Location: Incheon (Korea)

Lines of Business: Laundry detergents, dishwashing detergents, toothpastes, toothbrushes, and hair and skin care products, etc.

Category	Year				(ton)
	2007	2008	2009	2010	2011
CO ₂ emissions	17,724	15,791	16,354	16,667	15,296
Total waste generated	856	1,366	501	708	538
Landfill waste	536	512	459	451	441
SOx emissions	1	1	1	1	1
NOx emissions	0	0	0	0	0
COD emissions	0	0	0	0	0

Lion Chemical Industry (Taiwan) Co., Ltd.

Location: Wugu, Kannon (Taiwan)

Lines of Business: Laundry detergents, dishwashing detergents, toothpastes, toothbrushes, and skin care products, surfactants, etc.

Category	Year				(ton)
	2007	2008	2009	2010	2011
CO ₂ emissions	4,668	3,942	4,124	4,135	3,559
Total waste generated	90	88	111	108	80
Landfill waste	48	48	65	70	54
SOx emissions	3	5	2	3	3
NOx emissions	3	4	3	2	4
COD emissions	15	11	6	0	1

Lion Corporation (Thailand) Ltd.

Location: Sriracha (Thailand)

Lines of Business: Laundry detergents, dishwashing detergents, toothpastes, toothbrushes, and hair and skin care products, etc.

Category	Year				(ton)
	2007	2008	2009	2010	2011
CO_2 emissions	20,846	22,661	26,793	28,750	29,572
Total waste generated	948	2,316	2,299	2,551	2,893
Landfill waste		1,332	1,240	1,315	1,412
SOx emissions	1	2	0	1	0
NOx emissions	17	6	11	5	22
COD emissions	1	4	1	8	3

Lion Eco Chemicals Sdn. Bhd.

Location: Johor (Malaysia)

Lines of Business: surfactants

Category	Year				(ton)
	2007	2008	2009	2010	2011
CO ₂ emissions			2,273	4,359	7,578
Total waste generated			381	407	252
Landfill waste			89	231	223
SOx emissions			8	15	38
NOx emissions			0	0	0
COD emissions			0	0	1

*CJ Lion (Korea) calculates its CO₂ emissions by using Korea's calorific value conversion factor for each fuel and electricity as well as the conversion factor for CO₂ emission amount.

*The calculation method for CO_2 emission amount outside of CJ Lion, the The Japan Electrical Manufacturers' Association's(JEMA) "The Estimated Report for the Power Sector and CO_2 Basic Unit for Emission(Ver. 3) (2006)" was used. The calculation method for CO_2 emission amount for fuel other than electricity, the calorific value conversion factor for CO_2 emission amount within Japan included in the Ministry of the Environment's "Calculation Method and Report for Greenhouse Gas Emission(Ver.3.2) (2011) " was used.