

Environmental Data for Overseas Plants

As of 31 December 2022

Lion Corporation (Thailand) Ltd.

Category		Year					(ton)
		2018	2019	2020	2021	2022	
CO ₂ emissions		34,400	35,200	34,600	16,500	14,300*	
Waste	Total waste generated	3,500	3,100	3,100	3,000	3,000	
	Landfill waste	2,100	320	210	34	0	
SOx emissions		1>	1>	1>	1>	1>	
NOx emissions		4.2	4.8	6.2	1.3	6.1	
COD		34	35	70	66	12	

Eastern Silicate Co., Ltd.

Category		Year					(ton)
		2018	2019	2020	2021	2022	
CO ₂ emissions		31,200	28,600	32,500	41,500	33,600	
Waste	Total waste generated	140	140	140	140	190	
	Landfill waste	140	140	140	140	190	
SOx emissions		1>	1>	1>	1>	2	
NOx emissions		53	100	65	32	25	
COD**		-	-	-	-	-	

Southern Lion Sdn. Bhd.

Category		Year					(ton)
		2018	2019	2020	2021	2022	
CO ₂ emissions		15,000	13,800	14,100	14,200	14,800	
Waste	Total waste generated	200	140	190	110	240	
	Landfill waste	63	28	65	100	75	
SOx emissions		1>	1>	1>	1>	1>	
NOx emissions		1>	0	0	0	0	
COD		1.5	1.5	1.3	7.6	1>	

Lion Corporation(Korea)

Category		Year					(ton)
		2018	2019	2020	2021	2022	
CO ₂ emissions		15,000	12,300	12,000	11,700	11,100	
Waste	Total waste generated	610	750	460	450	560	
	Landfill waste	480	550	390	280	0	
SOx emissions		1>	0	0	1>	1>	
NOx emissions		0	0	0	0	1>	
COD		1>	2.1	1.9	1>***	1***	

Lion Daily Necessities Chemicals (Qingdao) Co., Ltd.

Category		Year					(ton)
		2018	2019	2020	2021	2022	
CO ₂ emissions		1,460	1,360	1,300	1,450	1,490	
Waste	Total waste generated	44	51	48	65	100	
	Landfill waste	0	0	0	22	47	
SOx emissions		0	0	0	0	0	
NOx emissions		0	0	0	0	0	
COD		2.6	2.4	2.1	2.7	5	

*Excluding the amount purchased with carbon credits. CO₂ emissions without deduction are 29,800 tons.

**Eastern Silicate Co., Ltd. has no COD because there is no direct drainage.

***Lion Corporation (Korea) COD from 2021 is TOC.

• CO₂ emissions of all sites were calculated with the conversion factors for CO₂ emissions from electricity contained in "IEA Emission factors 2021" published by International Energy Agency (IEA).

• CO₂ emissions from fuel combustions except electricity were calculated with the calculation method and conversion factors based on "the greenhouse gas emissions accounting and reporting manual of the Accounting and Reporting System (ver4.8)" published by the Japanese Ministry of Environment and the Ministry of Economy, Trade and Industry.