

COMPREHENSIVE LCA OF THE CIGARETTE PRODUCTION PROCESS

Table C.1 Comprehensive LCA of the cigarette production process.*

Functional unit: 1 million cigarettes					
Inputs	Unit	No. of units	Outputs	Unit	No. of units
Tobacco	ton	1,50	Air emissions	ton CO ₂ eq	2,59
Cigarette paper	g	10,65	Total waste	kg	78,20
Packaging materials	g	23,93	Waste to landfill	kg	36,16
Total energy	GJ	25,20	Waste for recycling	kg	40,12
Electricity	KW-hr	1 980,96	Hazardous waste for removal	kg	1,92
	GJ	7,13	Water ²	kl	8,25
Coal	ton	0,61	Total dissolved solids ³	kg	1,62
	GJ	17,07	Chlorine ³	kg	0,25
LP-gas	kg	4,20	Notes 1 Transportation fuel includes fuel usage for passenger kilometres, freight kilometres and air travel. 2 Because the water effluent flow rate is not measured, it is assumed 42% of the input water is consumed within the factory (Buissine, 2003). 3 Total dissolved solids and Chlorine are measured on site as 196 mg/l and 30 mg/l respectively (Buissine, 2003).		
	GJ	0,20			
Diesel	l	4,10			
	GJ	0,16			
Transportation fuel ¹	GJ	0,64			
Water	kl	14,22			

* Data from Buissine (2003).