

Supplementary Materials

Supplemental information for Assessment of progressive product innovation on key environmental indicators: Pampers® baby wipes from 2007–2013.

Table S1. All indicator results for 1000 wipes in WE in 2007 and 2013.

Life Cycle Indicator	Unit	2007	2013
Primary Energy	MJ	2.6×10^2	2.2×10^2
Global Warming	kg CO ₂ eq	1.0×10	9.5
Ozone depletion	kg CFC-11 eq	6.8×10^{-7}	5.4×10^{-7}
Terrestrial acidification	kg SO ₂ eq	3.4×10^{-2}	3.2×10^{-2}
Freshwater eutrophication	kg P eq	2.7×10^{-3}	2.5×10^{-3}
Marine eutrophication	kg N eq	6.4×10^{-3}	4.5×10^{-3}
Human toxicity	kg 1,4-DB eq	3.2	3.0
Photochemical oxidant formation	kg NMVOC eq	3.5×10^{-2}	3.1×10^{-2}
Particulate matter formation	kg PM10 eq	1.3×10^{-2}	1.2×10^{-2}
Terrestrial ecotoxicity	kg 1,4-DB eq	1.9×10^{-3}	1.4×10^{-3}
Freshwater ecotoxicity	kg 1,4-DB eq	1.2×10^{-1}	1.1×10^{-1}
Marine ecotoxicity	kg 1,4-DB eq	1.1×10^{-1}	1.0×10^{-1}
Ionising radiation	kg U235 eq	1.2	9.6×10^{-1}
Agricultural land occupation	m2a	2.4	2.1
Urban land occupation	m2a	6.8×10^{-2}	6.3×10^{-2}
Natural land transformation	m2	1.5×10^{-3}	1.2×10^{-3}
Water depletion	m3	1.1×10^{-1}	9.3×10^{-2}
Metal depletion	kg Fe eq	1.0×10^{-1}	1.5×10^{-1}
Fossil fuel depletion	kg oil eq	4.6	3.9
Solid waste	kg	1.4×10	1.2×10

Table S2. All indicator results for 1000 wipes in the US in 2007 and 2013.

Life Cycle Indicator	Unit	2007	2013
Primary Energy	MJ	5.3×10^2	4.0×10^2
Global Warming	kg CO ₂ eq	1.8×10	1.4×10
Ozone depletion	kg CFC-11 eq	1.9×10^{-6}	1.4×10^{-6}
Terrestrial acidification	kg SO ₂ eq	1.7×10^{-1}	1.2×10^{-1}
Freshwater eutrophication	kg P eq	3.1×10^{-3}	2.2×10^{-3}
Marine eutrophication	kg N eq	2.8×10^{-2}	2.3×10^{-2}
Human toxicity	kg 1,4-DB eq	1.1×10	7.2
Photochemical oxidant formation	kg NMVOC eq	7.8×10^{-2}	6.0×10^{-2}
Particulate matter formation	kg PM10 eq	4.4×10^{-2}	3.2×10^{-2}
Terrestrial ecotoxicity	kg 1,4-DB eq	2.5×10^{-3}	1.3×10^{-3}
Freshwater ecotoxicity	kg 1,4-DB eq	2.6×10^{-1}	2.0×10^{-1}
Marine ecotoxicity	kg 1,4-DB eq	2.5×10^{-1}	1.9×10^{-1}
Ionising radiation	kg U235 eq	1.2	9.4×10^{-1}
Agricultural land occupation	m2a	5.3	4.5

Table S2. *Cont.*

Life Cycle Indicator	Unit	2007	2013
Urban land occupation	m2a	1.2×10^{-1}	9.8×10^{-2}
Natural land transformation	m2	1.7×10^{-3}	1.2×10^{-3}
Water depletion	m3	1.7×10^{-1}	1.0×10^{-1}
Metal depletion	kg Fe eq	2.0×10^{-1}	9.6×10^{-2}
Fossil fuel depletion	kg oil eq	9.7	7.9
Solid waste	kg	1.6×10	1.0×10