

Appendix 3.11 Emission Factors

Appendix 3.11: Emission Factors

NOx Emission for 2017 (Tonnes per weekday) - Local Road (50km/h) (x100)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	1.608E-04	4.014E-04	0	1.111E-03	1.375E-03	6.507E-03	1.544E-02	2.101E-04	0	0	0	0	0	0	0	9.976E-05
Type B AM	4.462E-04	6.577E-04	1.291E-04	2.425E-03	3.086E-03	3.503E-02	6.420E-02	1.770E-03	5.222E-04	2.897E-03	5.144E-04	6.415E-04	1.010E-03	4.225E-04	6.922E-03	2.102E-04
Type A PM	1.627E-04	3.554E-04	0	7.842E-04	8.734E-04	6.817E-03	1.858E-02	0	0	0	0	0	0	0	0	1.591E-04
Type B PM	4.576E-04	7.100E-04	1.295E-04	1.824E-03	2.322E-03	3.051E-02	6.217E-02	1.188E-03	1.108E-04	6.371E-04	1.720E-04	3.217E-04	5.064E-04	4.238E-04	6.171E-03	0
Total daily	1.227E-03	2.124E-03	2.586E-04	6.144E-03	7.657E-03	7.886E-02	1.604E-01	3.169E-03	6.330E-04	3.534E-03	6.864E-04	9.632E-04	1.516E-03	8.463E-04	1.309E-02	4.691E-04

RSP Emission for 2017 (Tonnes per weekday) - Local Road (50km/h) (x100)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	1.498E-05	0	0	6.889E-05	5.361E-05	4.350E-04	8.179E-04	9.720E-06	0	0	0	0	0	0	0	2.106E-06
Type B AM	4.149E-05	0	1.147E-05	1.502E-04	1.202E-04	2.340E-03	3.399E-03	8.173E-05	5.497E-05	1.424E-04	4.044E-05	4.648E-05	4.661E-05	4.340E-06	5.138E-05	4.428E-06
Type A PM	1.506E-05	0	0	4.848E-05	3.395E-05	4.545E-04	9.816E-04	0	0	0	0	0	0	0	0	3.335E-06
Type B PM	4.221E-05	0	1.147E-05	1.126E-04	9.011E-05	2.031E-03	3.280E-03	5.446E-05	1.157E-05	3.114E-05	1.347E-05	2.323E-05	2.329E-05	4.338E-06	4.565E-05	0
Total daily	1.137E-04	0	2.294E-05	3.802E-04	2.979E-04	5.260E-03	8.478E-03	1.459E-04	6.654E-05	1.736E-04	5.391E-05	6.970E-05	6.990E-05	8.678E-06	9.703E-05	9.870E-06

FSP Emission for 2017 (Tonnes per weekday) - Local Road (50km/h) (x100)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	1.389E-05	0	0	6.338E-05	4.932E-05	4.002E-04	7.524E-04	8.942E-06	0	0	0	0	0	0	0	1.654E-06
Type B AM	3.846E-05	0	1.055E-05	1.382E-04	1.106E-04	2.153E-03	3.127E-03	7.519E-05	5.074E-05	1.311E-04	3.720E-05	4.276E-05	4.288E-05	3.993E-06	4.727E-05	3.477E-06
Type A PM	1.396E-05	0	0	4.460E-05	3.124E-05	4.182E-04	9.031E-04	0	0	0	0	0	0	0	0	2.619E-06
Type B PM	3.914E-05	0	1.055E-05	1.036E-04	8.290E-05	1.868E-03	3.017E-03	5.010E-05	1.068E-05	2.865E-05	1.239E-05	2.137E-05	2.143E-05	3.991E-06	4.200E-05	0
Total daily	1.055E-04	0	2.110E-05	3.498E-04	2.741E-04	4.840E-03	7.800E-03	1.342E-04	6.142E-05	1.597E-04	4.960E-05	6.413E-05	6.431E-05	7.984E-06	8.927E-05	7.750E-06

Total VKT for 2017 - Local Road (50km/h) (x100)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	6312	902	0	1353	751	2976	3675	150	0	0	0	0	0	0	0	301
Type B AM	17483	1474	105	2949	1685	16008	15271	1264	4002	3370	316	211	211	105	948	632
Type A PM	6346	793	0	952	476	3109	4410	0	0	0	0	0	0	0	0	476
Type B PM	17789	1579	105	2210	1263	13894	14736	842	842	737	105	105	105	105	842	0

Emission factor for NOx (g/km-veh) for 2017 - Local Road (50km/h)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	0.0255	0.4451	0	0.8216	1.8302	2.1865	4.2011	1.3979	0	0	0	0	0	0	0	0.3319
Type B AM	0.0255	0.4460	1.2254	0.8222	1.8316	2.1881	4.2043	1.4007	0.1305	0.8595	1.6282	3.0456	4.7946	4.0121	7.3024	0.3327
Type A PM	0.0256	0.4480	0	0.8239	1.8352	2.1924	4.2125	0	0	0	0	0	0	0	0	0.3343
Type B PM	0.0257	0.4497	1.2303	0.8251	1.8380	2.1958	4.2190	1.4112	0.1316	0.8646	1.6339	3.0563	4.8114	4.0262	7.3279	0

Emission factor for RSP (g/km-veh) for 2017 - Local Road (50km/h)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	0.0024	0	0	0.0509	0.0713	0.1462	0.2226	0.0647	0	0	0	0	0	0	0	0.0070
Type B AM	0.0024	0	0.1089	0.0509	0.0713	0.1462	0.2226	0.0647	0.0137	0.0423	0.1280	0.2206	0.2213	0.0412	0.0542	0.0070
Type A PM	0.0024	0	0	0.0509	0.0713	0.1462	0.2226	0	0	0	0	0	0	0	0	0.0070
Type B PM	0.0024	0	0.1089	0.0509	0.0713	0.1462	0.2226	0.0647	0.0137	0.0423	0.1280	0.2206	0.2213	0.0412	0.0542	0

Emission factor for FSP (g/km-veh) for 2017 - Local Road (50km/h)

Hour	PC	taxi	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC
Type A AM	0.0022	0	0	0.0469	0.0656	0.1345	0.2048	0.0595	0	0	0	0	0	0	0	0.0055
Type B AM	0.0022	0	0.1002	0.0469	0.0656	0.1345	0.2048	0.0595	0.0127	0.0389	0.1177	0.2030	0.2036	0.0379	0.0499	0.0055
Type A PM	0.0022	0	0	0.0469	0.0656	0.1345	0.2048	0	0	0	0	0	0	0	0	0.0055
Type B PM	0.0022	0	0.1002	0.0469	0.0656	0.1345	0.2048	0.0595	0.0127	0.0389	0.1177	0.2030	0.2036	0.0379	0.0499	0

Ratio of RSP to FSP

Total RSP (Tonnes/Day) = 0.01525

Total FSP (Tonnes/Day) = 0.01403

Ratio RSP:FSP = 1 : 0.92