

GlaxoSmithKline Corporate Responsibility Report 2013 – Environmental Metrics (Detailed)¹

Energy Use	2013	2012	2011	2010
Energy for operations (million GJ)	16.9	16.8	17.7	18.3
Natural Gas	8.85	8.75	8.96	8.67
Other Fuels	0.52	0.56	0.60	0.79
Coal	0.49	0.49	0.80	0.78
Steam/Hot Water (Scope 2)	0.52	0.39	0.13	0.15
Electricity (Scope 2)	6.51	6.60	7.16	7.86

Electricity from sustainable resources	0.3	0.3	0.3	0.3
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Green House Gas Emissions (CO2 equivalents)³	2013	2012	2011	2010
Total Scope 1 & 2 emissions (million kg)	1833.3	1822.3	1917.0	1975.4
Total Scope 1 emissions (million kg)	1037.3	1018.0	1035.9	1011.2
On-site fuel use	532.6	530.2	572.3	569.6
Sales force vehicles ^{2,10}	177.2	167.0	168.9	165.1
Propellant gas emissions during manufacture of inhalers ^{13,14}	254.4	244.2	222.8	214.2
On-site waste or waste water treatment	23.6	27.2	16.1	16.7
Refrigerant gas losses ^{4,5}	14.3	14.5	13.9	11.1
Direct CO2 releases from production	35.2	33.2	38.5	30.4
Other releases	0.2	1.7	3.4	4.0

Total Scope 2 emissions (million kg)	796.0	804.3	881.1	964.2
Electricity	786.5	792.8	868.6	952.6
Steam/Hot Water	9.5	11.5	12.5	11.6

Total Verified Scope 3 emissions (millions kg)	5597.6	5499.4	5057.2	4912.1
Emissions from use of propellant based inhalers by patients	5302.3	5198.3	4760.0	4647.3
Product Logistics ²	202.2	202.7	199.9	169.1
Business Travel by Air ²	93.0	98.4	97.2	95.8

Water use and discharge	2013	2012	2011	2010
Water (million m3)	15.7	16.1	17.4	18.7
Municipal	10.19	9.94	10.91	11.67
Ground Water	5.15	5.85	6.24	6.78
Surface Water	0.10	0.00	0.00	0.00
Tankers	0.21	0.00	0.00	0.00
Other Water	0.02	0.28	0.22	0.23
Recycled Sources ⁶	0.34	0.41	0.56	0.51

Wastewater volume (million m3) ⁷	8.9	8.8	9.7	10.2
Recycling	0.22	0.35	0.37	0.37
Municipal sewer	5.47	4.61	4.88	5.46
Surface Water	3.04	3.80	4.48	4.35
Other	0.20	0.01	0.00	0.00

COD after on-site treatment (million kg) ^{7,8}	17.5	11.3	12.3	12.0
Municipal sewer	12.22	2.21	2.56	2.47
Ground Water	2.36	0.00	0.00	0.00
Surface Water	0.39	9.06	9.74	9.53
Recycling	2.51	0.00	0.00	0.00

Volatile organic compound emissions¹¹	2013	2012	2011	2010
Volatile organic compound emissions (million kg)	1.0	1.3	1.9	2.6

Ozone depleting substances (thousand kg) ⁴	2013	2012	2011	2010
ODS contained in equipment (CFC 11 equivalent)	4.00	4.17	7.49	7.79
ODS Releases from equipment (CFC 11 equivalent)	0.11	0.11	0.20	0.21

Waste generated and disposed	2013	2012	2011	2010
Hazardous waste generated (million kg) ⁹	53.2	192.8	198.0	198.2
Hazardous waste recycled	9.87	152.74	159.07	156.09
Hazardous waste disposed	43.31	40.04	38.89	42.13
Hazardous waste to landfill ¹⁵	0.39	0.26	0.40	0.35

Non-hazardous waste generated (million kg)	114.6	101.3	121.1	125.5
Non-hazardous waste recycled	88.15	74.97	95.92	95.69
Non-hazardous waste disposed	26.45	26.32	25.19	29.85
Non-hazardous waste to landfill ¹⁵	10.15	9.79	12.72	16.82

Non-routine waste generated (million kg) ¹²	4.5	7.1	29.9	43.5
Non-routine waste recycled	2.97	5.43	11.36	41.41
Non-routine waste disposed	1.52	1.67	18.56	2.07
Non-routine waste to landfill ¹⁵	0.67	1.02	1.42	1.67

GlaxoSmithKline Corporate Responsibility Report 2013 – Environmental Metrics (Detailed) - footnotes

- 2013 values include some estimated data for December when actual data were not available in time for publication
- Energy and climate change impact for travel and transport by air, land and sea are calculated using the Greenhouse Gas Protocol. The measurement is based on distance travelled, not directly on fuel use. For employee air travel we capture all routes globally for individual bookings but only UK and the USA for group bookings. For product logistics we capture all routes globally by air and sea, but by road we only collect EU, USA and Canada. Product distribution by road in the USA and Canada include estimated distance.
- Climate change impact is calculated as CO2 equivalent using the Greenhouse Gas Protocol developed by the World Resources Institute and the World Business Council for Sustainable Development. Climate change impact for transport is calculated as CO2 (not CO2 equivalent) Each year we review the CO2 factors for electricity and steam and update the data for all years as appropriate using the International Energy Agency Statistics - CO2 from Fuel Combustion
- We use the factors for climate change emissions and ozone depletion potential from WMO (World Meteorological Organisation), Scientific assessment of ozone depletion: 2006. Chapter 8. Table 8-1 Lifetimes, relative fractional halogen release factors, and Ozone Depletion Potentials for halocarbons. Table 8-2 Direct Global Warming Potentials for selected gases. Refrigeration & Air Conditioning CFC and HCFC Phase Out: Advice on Alternatives & Guidelines for Users, UK DTI. Appendix A.
- Each year we review refrigeration equipment inventories for all years and estimate incomplete data. We calculate the probable releases of refrigerant using a factor (2.75% mass) from the British Refrigeration Association. GSK's methodology used to calculate scope 1 emissions of refrigerant gasses also considers the GWP of CFC in addition to those required by following the GHG protocol.
- Recycled water is not included in total water consumption.
- We focus collection of wastewater and chemical oxygen demand data primarily on the major contributors; primary manufacturing operations, pilot plants, coating activities and sterile operations. Some sanitary wastewater streams are included if they cannot be separated from production wastewater streams or if they are significant.
- Chemical oxygen demand (COD), a measure of water pollution, is measured when wastewater leaves our sites following any on-site treatment.
- In 2013 we have revised our hazardous waste categories. Hazardous solvent waste recycled on site is no longer included in total hazardous waste generated. For comparison, historical hazardous waste generated excluding solvent recycled and reused on site is given below:

Hazardous waste generated	2013	2012	2011	2010
Hazardous waste generated (million kg) including solvent recycled and reused on site	53.2	192.8	198.0	198.2
Hazardous solvent waste recycled and reused on site (2010 to 2012, not reported from 2013 onwards).	n/a	144	149	146
Hazardous waste generated excluding solvents recycled and reused on site (2010 to 2012)	53	49	49	52

10. Our CO2 emissions from distance driven by sales vehicles have increased as a result of increased reporting by our sales offices.
11. We focus collection of volatile organic compound emissions on the major contributors; primary manufacturing operations, pilot plants, coating activities and sterile operations.
12. Non-routine waste includes construction and demolition rubble and is not included in hazardous or non-hazardous waste calculations.
12. Non-routine waste includes construction and demolition rubble and is not included in hazardous or non-hazardous waste calculations.
13. Data for Propellant gas emissions during manufacture of inhalers for 2012 has been restated as there was an error in the data from our Evreux manufacturing site.
14. In 2013 GSK improved the methodology for calculating the "Propellant gas emissions during manufacture of inhalers" for the Zebulon site, bringing it into line with reporting at our Aranda and Evreux sites, which has highlighted a small underreporting error in previous years.
15. Waste-to-landfill volumes are included in waste disposed categories.

GlaxoSmithKline Corporate Responsibility Report 2013 – Health & Safety Metrics (Detailed)

Injury and illness - GSK employees ¹	2013	2012	2011	2010
Hours worked (millions)	185.7	204.2	204.0	207.9
Fatalities	0	2	2	1
Number of Injuries & illnesses with lost time ²	349	404	429	508
Calendar Days Lost ³	6869	9370	10114	10825
Number of Injuries & illnesses without lost time ⁴	188	267	429	508
Lost-Time injury & illness rate (per 100,000 hours worked)	0.19	0.20	0.21	0.24
Reportable Injury & Illness Rate (per 100,000 hours worked)	0.29	0.33	0.36	0.41
Calendar days lost rate	3.70	4.59	4.96	5.21
Number of Near Miss Incidents ⁵	131924	66514	29309	7034

Notes:

1. Data cover both our employees and our contract workers who are directly supervised by GSK employees. We report a snapshot of injury and illness performance for the year. Cases may be added after the end of the year, so prior years may change.
2. Lost-time injuries and illnesses are work-related injuries and illnesses that are serious enough to result in one or more days away from work.
3. Lost calendar days are the days – including weekends – that employees could not work because of work-related injuries and illnesses. This helps provide a measure of the severity of the injuries and illnesses.
4. Reportable injuries and illnesses without lost time are incidents that did not result in time away from work. There are more serious than first aid but not serious enough to result in lost time.
5. Near miss incidents were reported from GMS in 2010 & 2011 as a pilot and then reported globally from 2012