
IX. Global Natural Background Flow to the Atmosphere of Selected Substances*

substance	rate (kg of substance/yr)†
CH ₄	7×10^{11}
H ₂ S and SO ₂	10^{11} kg(S)/yr
SO ₄ ⁻²	5×10^{10} kg(S)/yr
NO _x and NH ₃	5×10^{11} kg(N)/yr
particles less than 20 microns in diameter	3×10^{12}
arsenic	2×10^7
cadmium	3×10^5
chromium	6×10^7
copper	2×10^7
lead	6×10^6
manganese	6×10^8
mercury	3×10^7
nickel	3×10^7
selenium	3×10^6
vanadium	7×10^7
zinc	4×10^7

*This includes dust emissions, volcanic eruptions, biological processes, and volatilization from land and water. The first three entries in the table are believed to be known to $\pm 30\%$. The others are far more uncertain and are order-of-magnitude estimates only.

†Except where noted
