Let $U^n$ be the unit polydisc of $\mathbb{C}^n$ and $\varphi(z) = (\varphi_1(z), \ldots, \varphi_n(z))$ a holomorphic self-map of $U^n$. Let $H(U^n)$ denote the space of all holomorphic functions on $U^n$, $H^\infty(U^n)$ the space of all bounded holomorphic functions on $U^n$, and $B^a(U^n)$, $a > 0$, the $a$-Bloch space, i.e.,

$$B^a(U^n) = \left\{ f \in H(U^n) \mid \|f\|_{B^a} = |f(0)| + \sup_{z \in U^n} \sum_{k=1}^n \left| \frac{\partial f}{\partial z_k}(z) \right| (1 - |z_k|^2)^a < +\infty \right\}.$$

We give a necessary and sufficient condition for the composition operator $C_{\varphi}$ induced by $\varphi$ to be bounded and compact between $H^\infty(U^n)$ and $a$-Bloch space $B^a(U^n)$, when $a \geq 1$. 