The Milnor conjecture identifies the cohomology ring $H^*(\text{Gal}(\overline{k}/k), \mathbb{Z}/2)$ with the tensor algebra of $k^*$ mod the ideal generated by $x \otimes 1 - x$ for $x$ in $k - \{0, 1\} \mod 2$. In particular, $x \cup 1 - x$ vanishes, where $x$ in $k^*$ is identified with an element of $H^1$. We show that order $n$ Massey products of $n - 1$ factors of $x$ and one factor of $1 - x$ vanish by embedding $\mathbb{P}^1 - \{0, 1, \infty\}$ into its Picard variety and constructing $\text{Gal}(\overline{k}/k)$-equivariant maps from $\pi^\text{et}_1$ applied to this embedding to unipotent matrix groups. This also identifies Massey products of the form $\langle 1 - x, x, \ldots, x, 1 - x \rangle$ with $f \cup 1 - x$, where $f$ is a certain cohomology class which arises in the description of the action of $\text{Gal}(\overline{k}/k)$ on $\pi^\text{et}_1(\mathbb{P}^1 - \{0, 1, \infty\})$. 