coprime_divisors_prod[2,24]

$\forall a_1,\ a_2,\ b{:}\mathbb{Z}.\ \mathrm{CoPrime}(a_1,a_2) \Rightarrow a_1 \mid b \Rightarrow a_2 \mid b \Rightarrow a_1 \cdot a_2 \mid b$

http://www.nuprl.org/FDLcontent/p0_399846_/p83_7848_{coprime_divisors_prod}.html