Abstract. In general, the tensor product, $A \otimes B$, of the lattices $A$ and $B$ with zero is not a lattice (it is only a join-semilattice with zero). If $A \otimes B$ is a capped tensor product, then $A \otimes B$ is a lattice (the converse is not known). In this paper, we investigate lattices $A$ with zero enjoying the property that $A \otimes B$ is a capped tensor product, for every lattice $B$ with zero; we shall call such lattices amenable.

The first author introduced in 1966 the concept of a sharply transferable lattice. In 1972, H. Gaskill defined, similarly, sharply transferable semilattices, and characterized them by a very effective condition $(T)$.

We prove that a finite lattice $A$ is amenable iff it is sharply transferable as a join-semilattice.

For a general lattice $A$ with zero, we obtain the result: $A$ is amenable iff $A$ is locally finite and every finite sublattice of $A$ is transferable as a join-semilattice.

This yields, for example, that a finite lattice $A$ is amenable iff $A \otimes F(3)$ is a lattice iff $A$ satisfies $(T)$, with respect to join. In particular, $M_3 \otimes F(3)$ is not a lattice. This solves a problem raised by R. W. Quackenbush in 1985 whether the tensor product of lattices with zero is always a lattice.