Abstract

Process for preparing an alkene oxide, which comprises at least the steps (i), (ii) and (v):

(i) providing a stream S1 comprising compressed, liquid alkene;

(ii) depressurizing at least part of the stream S1 with absorption of heat and with at least partial vaporization of the liquid alkene;

(v) reacting the alkene obtained in (ii) with a hydroperoxide in the presence of at least one solvent and at least one catalyst to give a mixture comprising alkene oxide and the solvent or solvents.