

ABSTRACT**PROCESS FOR PREPARING MONOMERS AND POLYMERS THEREOF**

A process of preparing an ethylenically unsaturated amide or an ethylenically unsaturated carboxylic acid or salt thereof from the corresponding ethylenically unsaturated nitrile wherein the nitrile is subjected to a hydration or hydrolysis reaction in an aqueous medium in the presence of a biocatalyst, wherein the nitrile contains above 2 ppm acrolein and the amide or carboxylic acid or salt thereof contains less than 2 ppm acrolein. The process can be used to prepare high purity acrylamide or acrylic acid (salt) from low quality acrylonitrile containing high levels of acrolein. Suitable biocatalysts include microorganisms of the *Rhodococcus* genus.

No Figure