

Abstract

The present invention relate to a binderless molecular sieve catalyst and a process for preparing the same, which are mainly useful for solving the problems of the current catalysts, such as lower activity, less pore volume and worse diffusivity. The present invention relates to a novel binderless molecular sieve catalyst, comprising, based on the weight of the catalyst, 90-100 wt.% of a molecular sieve, 0-10 wt.% of a binder, and 0-10 wt.% of an anti-wear agent, wherein said catalyst has a pore volume of 0.1-0.5 ml/g, an average pore diameter of 50-100 nm, and a porosity of 20-40%; the anti-wear agent is selected from the rod or needle-like inorganic materials having a length/diameter ratio of 2-20. Said catalyst has the advantages of higher activity, greater pore volume, larger average pore diameter and porosity, and better diffusivity, and well solves said problems and can be used for the industrial preparation of binderless molecular sieve catalysts.