

ABSTRACT

Provided is a methacrylic acid production catalyst that achieves a high methacrylic acid yield. The methacrylic acid production catalyst is used when producing methacrylic acid by subjecting methacrolein to vapor-phase contact oxidation using molecular oxygen, and contains a heteropoly acid salt at least containing phosphorus, molybdenum, and vanadium. In an X-ray diffraction pattern of the methacrylic acid production catalyst as measured using a Cu-K α ray after the methacrylic acid production catalyst is allowed to stand for 12 hours in an environment in which the temperature and humidity are maintained at 30°C and 90%, the ratio (I_{11}/I_{10}) of the absolute value of the peak intensity I_{11} of the (322) plane attributed to the cubic crystal structure of a proton-type heteropoly acid to the absolute value of the peak intensity I_{10} of the (222) plane attributed to the cubic crystal structure of the heteropoly acid salt is 0.01-0.80.