

ABSTRACT

There is provided a process for producing high-purity diisobutylene with a high reaction selectivity in which a mixed C4 fraction is contacted with
5 an oligomerization catalyst to subject isobutene to oligomerization at one stage. The present invention relates to a process for producing diisobutylene by contacting a mixed C4 fraction as a raw material with a solid acid catalyst, which includes the steps of (a) isobutene oligomerization; (b) subjecting the resulting reaction products to distillation to separate the unreacted C4 fraction
10 and an oligomer fraction including a C8 fraction produced from each other; and (c) purification of diisobutylene from the C8 fraction by distillation, in which a conversion of isobutene contained in the mixed C4 fraction upon conducting the step (a) is controlled to a range of from 60 to 95%.