

PROCESS FOR PRODUCTION OF HIGH-PURITY TRIMELLITIC ACID

Abstract

Provided is a process for the production of high-purity trimellitic acid including subjecting a dimethylbenzaldehyde and/or an oxidized derivative of the dimethylbenzaldehyde to liquid-phase oxidation with molecular oxygen in an aqueous solvent containing a catalyst to produce trimellitic acid, in which: 3,4-dimethylbenzaldehyde and/or 3,4-dimethylbenzoic acid are/is used as a raw material; a catalyst containing 0.05 to 1 part by mass of one or more kinds of metals selected from the group consisting of cobalt, manganese, and nickel, 0.0001 to 0.0015 part by mass of metallic iron and/or iron obtained from a water-soluble iron salt, and 1 to 5 parts by mass of bromine with respect to 100 parts by mass of the aqueous solvent is used as the catalyst; and the liquid-phase oxidation is conducted at a temperature of 200 to 250°C. According to the process of the present invention, there can be provided high-quality, high-purity trimellitic acid with extremely small amounts of by-products such as an intermediate of oxidation, an addition compound, and an organobromine compound in high yield. In addition, the residual ratio of bromine used as a catalyst is high, and hence a production cost is curtailed.

No Figure